Eco4

Installation & Operation Guide

NetVu CONNECTED

Intelligent Security & Fire Ltd

Contents

Features 4
Configuring the Unit 16
Main Menu 20
System 22
Unit Status 24
Alarm Status 25
About 26
Language 29
Time and Date 30
Serial Ports 32
Audio 35
Features 36
Maintain 40
Viewer Defaults 48
Display 50
User Accounts 52
Camera Setup 55
Camera Overview 57
Record 59
Profile Record 60
JPEG Pre Trigger 64
Protect Video 65
AoE 67
Video Storage 68
Schedule 72
Holiday & Weekend 74
Alarm Input 76
Zone Input 78
Zone Actions 80
Activity Response Setup 83
Activity 85
Global Actions 87
Network 90
Live Transmissions 92
Multicast Setup 94
Email 96
Remote Reporting 98
Firewall 100
Archive 101
Debug Parser 103

Intelligent Security & Fire Ltd

Whilst every attempt is made to ensure these manuals are accurate and current, Dedicated Micros reserve the right to alter or modify the specification of the machine described herein without prejudice.

Dedicated Micros ©2011

Introduction

What is the…

Eco4 ?

The new Eco4 from Dedicated Micros provides low cost multi channel recording with simultaneous playback and viewing; ideal for the cost conscious user who needs reliable, networked, high performance CCTV at an affordable price.

Available with 4 camera inputs, all offering telemetry control, the Eco4 has built in Alarm functionality and onboard Activity detection software.

The front panel softkey interface and the accompanying mouse enables simple, quick operation. Dedicated Micros trademark plug and play intuitive set-up, user-friendly interface and configuration menus common to both local monitor and web interface; help keep installation and operator training to a minimum.

The Eco4 offers a global record rate of up to 100pps at CIF and can record up to 4 cameras simultaneously in MPEG-4 or JPEG format.

The Profile Record feature enables an operator to set different recording rates and resolutions across scheduled, normal and alarm modes for all cameras.

As standard, the unit contains internal storage with USB ports for external archiving.

Among the many other features included as standard on the Eco4 are; multiway display, multiple language support, audio recording, activity detection and remote monitoring using NetVu ObserVer (utilising DM's unique ***Trans****Coding capabilities to provide fluent live and replay images).*

The Eco4 is undoubtedly the ideal product when high-performance video recording and transmission is required at an affordable cost.

For further information, please visit the website:

www.dedicatedmicros.com

or contact Dedicated Micros customer services in your region.

Intelligent Security Group Pte Ltd

Features

- 4 analog camera inputs
- True global record rate of up to 100pps at CIF
- Simultaneous Live viewing and Recording
- 4CIF/2CIF/CIF/ QCIF record rate per camera
- JPEG, & MPEG-4 recording and transmission
- Touch sensitive front control panel
- Easy to use on-screen, colour coded softkeys
- Telemetry support (Serial)
- All DVR functions fully supported by USB Mouse (supplied) or USB Keyboard / IR Remote Control (not supplied)
- Single, Picture in Picture and Multiway displays
- Live and playback viewing locally and over Ethernet
- Built in activity detection
- Built in USB ports for download of video archive to external flash memory
- Web pages provide easy remote configuration
- Alarm Inputs & Outputs
- On board Help Videos

NetVu CONNECTED

The unit has NetVu Connected technology built-in to ensure maximum compatibility with future developments in networked security. NetVu Connected technology enables the Unit to fully interact with other NetVu Connected compatible products from Dedicated Micros including the DV-IP Decoder, NetVu ObserVer and PDA Viewers. Providing interoperability between the worlds leading security companies, NetVu Connected uses industry standard networking protocols supported by a wide range of third party integration products and SDKs to ensure future on-going compatibility.

COMMON CONFIGURATION INTERFACE

A Common Configuration interface is displayed when the unit's configuration screens are accessed locally at the unit or remotely via a web browser. This unified system ensures that the installer is familiar with the configuration screens irrespective of their location to the unit, minimising training and familiarisation time and increasing the speed of installation and alteration.

The Unit includes a unique colour-coded menu structure and on-screen Graphical User Interface (GUI). Context sensitive, the menu structure always represents the area of the menu the user is in, allowing them to quickly select the options and settings they need without having to trawl through menu pages and options. The colour coded buttons displayed on the monitor match those on the touch screen front panel whilst control can also be conducted through an attached USB Mouse or Keyboard.

Intelligent Security & Fire Ltd

Dedicated Micros ©2011

Design of the manual

The manual has three parts:

1. Installation — Shows details of how to install the unit and connect external devices.
2. Configuration — Shows details of the unit's menus.
3. Operation — Shows quick reference details on how to control the unit.

The order and layout of these pages has been designed to help the setup process. It is recommended that the menus are edited sequentially (as they appear on the page), to enable accurate, easy and efficient setup.

Intelligent Security & Fire Ltd

Important Safeguards

Read Instructions
All the safety and operating instructions should be read before the unit is operated.

Power Sources
This unit should be operated only from the type of power source indicated on the manufacturer's label.

Servicing
Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards.
Refer all servicing to qualified service personnel.

Ventilation
Ensure unit is properly ventilated to protect from overheating.
All the safety and operating instructions should be read before the unit is operated.

To prevent fire or shock hazard, do not expose this equipment to rain or moisture. The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user of this equipment that there are dangerous voltages within the enclosure which may be of sufficient magnitude to constitute a risk of electric shock.

WARNING

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Lightning Strike
The unit has some in-built protection for lightning strike, however it is recommended that isolation transformers be fitted to the system in areas where lightning is a common occurrence.

Regulatory Notes and FCC and DOC Information
(USA and Canadian Models Only)

Warning: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

If necessary, the user should consult the dealer or an experienced radio/television technician for corrective action. The user may find the following booklet prepared by the Federal Communications Commission helpful: “How to Identify and Resolve Radio-TV Interference Problems”.

This booklet is available from the US Government Printing Office, Washington, DC20402, Stock No. 004-000-00345-4.

This reminder is provided to call the CCTV system installer’s attention to Art. 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Intelligent Security & Fire Ltd

CE Mark

CE

If this product is marked with the CE symbol it indicates compliance with all applicable directives.

Directive 89/336/EEC.

A 'Declaration of Conformity' is held at Dedicated Micros Ltd.,

1200 Daresbury Park, Daresbury, Cheshire, WA4 4HS, UK.

Intelligent Security & Fire Ltd

Installing the Unit

Before you start

Check the contents of the box

The following items are included in the box:

Remove all items from the packaging and check the items listed below are present.

- Eco4 DVR
- 12v DC Power Adaptor
- USB Mouse
- Eco4 Software CD
- Quick Start Guide

If any of these items are missing please contact Dedicated Micros Technical Support team.

IMPORTANT: *An IR Remote Control (DM/RC06) can be purchased separately, contact your regional Dedicated Micros representative for further details.*

Note: Before installing the unit, carefully read all Safety Instructions and the following information on where the unit should be located.

Choosing a location for installation

- The unit is designed to be desk or shelf mounted.
- Ensure the unit is properly ventilated to protect from overheating.
- Ensure there is a 3cm gap on both sides of the unit.
- Ensure the unit is not located anywhere it could be subject to mechanical shocks.
- The unit should be located in an area with low humidity and a minimum of dust. Avoid places like damp basements or loft spaces.
- If the unit is to be installed in a closed assembly, the maximum operating temperature must not exceed 40°C (104°F).
- Ensure there is reliable earthing of the mains outlet when fitted to supply connections (other than direct connection to the branch circuit).
- It is recommended that an uninteruptable power source be connected to the unit in case of power failure (to ensure continuous operation of the unit).

Electrical Connections

Please ensure the following are available and have been tested prior to the installation:

- Mains point
- Network point
- Network cable
- Active video signals i.e. at least one working camera feed
- PC with CD ROM drive and connection to the same network as the DVR (Recommended).

Intelligent Security by FireLtd

Quick Overview Of Default Record Settings

The unit provides as default:

Consistent recording duration and smooth motion video per camera regardless of the number of cameras.

Default record settings at MPEG4 6.25pps (at 2CIF) / JPEG 3pps (at 2CIF) .

Complete Flexibility

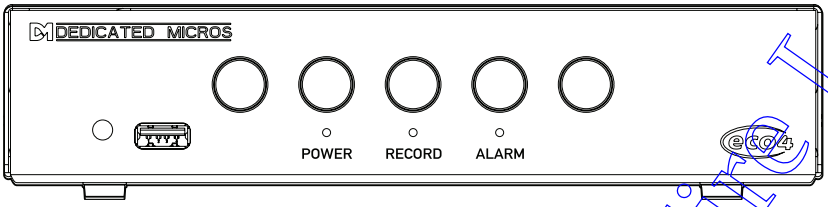
The advanced record menu can be used to configure individual cameras to suit specific requirements e.g. Entry/Exit routes. Various storage sizes are available dependant on the combination of the number of cameras, the storage options and record rates selected.

Note: *It is the Installer/Owner's responsibility to ensure that the record duration is set to the necessary requirements of the application.*

Intelligent Security & Fire Ltd

Installation

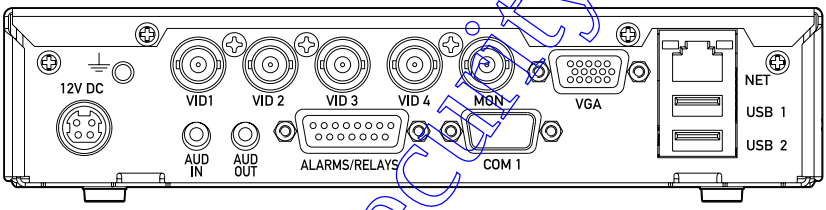
Front Panel connections



Data

USB	USB2.0 connector
IR Receiver	Infra-Red receiver for use with optional IR Remote Control
POWER LED	Illuminates when power is applied
RECORD LED	Illuminates when the unit is recording
ALARM LED	Illuminates when physical alarms have been triggered on the unit

Rear Panel connections



Video

VID1 to VID4	75Ω BNC composite video inputs 1V pk-pk
MON	75Ω BNC composite monitor output, 1V pk-pk
VGA	VGA Monitor output

Audio

Audio IN	Phono socket, 16KHz sampling line in
Audio OUT	Phono socket, line out

Data

SERIAL (COM 1)	RS-232 (3 wire) & RS-485 (2 wire), *refer to Appendix B.*
USB	2x USB2.0 connectors
NET	RJ45 Ethernet network connector, 10/100 Mb/s Ethernet Network

Intelligent Security by Fire Ltd

Alarms and relays

ALARMS	15 way (female) D Type 24V 200mA 4 General Alarm Inputs
RELAYS	Via 9 way (female) D Type rated at 24V 200mA 2 onboard light duty relay output (500mA@12V-48V Max)

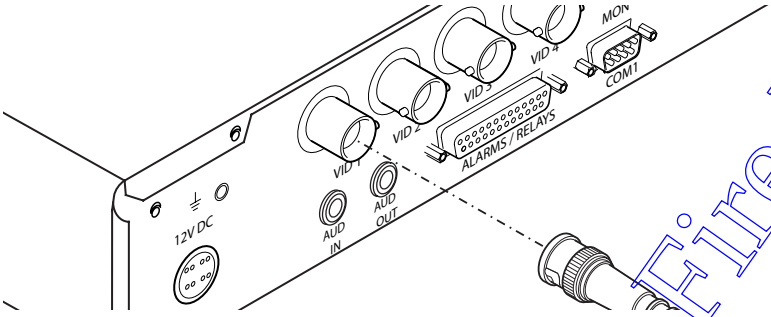
Power

POWER	Input for external 12v DC power supply (provided).

Intelligent Security & Fire Ltd

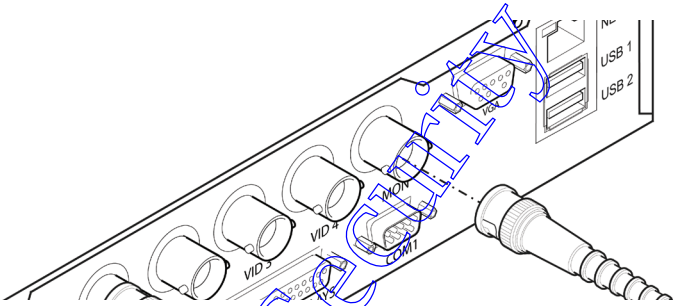
Installing the Eco4 Unit

Step 1 - Connecting Video



The unit supports up to 4 connected Video Inputs (dependant on model) via the 75Ω BNC connectors. Connect cameras to the video inputs, starting from input 1.

Step 2 - Monitor



The unit supports a main monitor via 'Mon'.
A monitor can also be connected via the VGA connector.

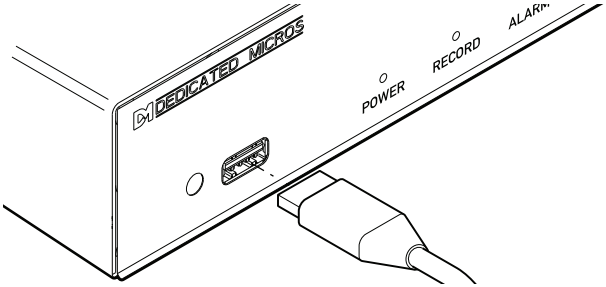
IMPORTANT NOTE

On initial boot, the unit will utilise the composite output (MON A) and display a request for confirmation that the message can be seen. If no confirmation is received after 30 seconds, the unit will REBOOT and display a similar message via the VGA output. If this message is not confirmed within 30 seconds, the unit will REBOOT again and continue this cycle until a confirmation is received.

Intelligent Security & Fire Ltd

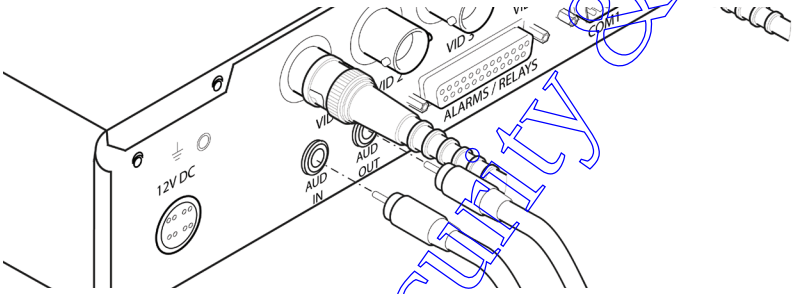
Dedicated Micros ©2011

Step 3 - Connecting the USB Mouse



The unit is supplied with a USB mouse to allow easy configuration and navigation. This should be connected to the USB socket at the front of the unit.

Step 4 - Connecting Audio

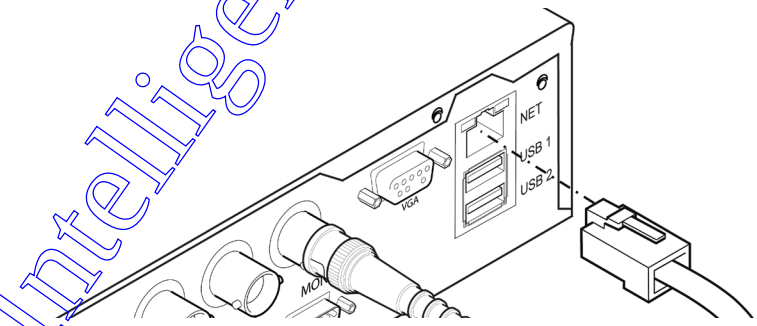


The unit supports one channel of bi-directional audio, accessible. Connect the audio equipment to the phono sockets AUDIO IN and AUDIO OUT. The audio channel defaults to recording camera 1.

The following modes of operation are supported:

- Challenge – intruders from an RVRC.
- Listen – to local audio from a site at the RVRC.
- Record - local audio from a site with the video.

Step 5 - Connecting to the Network



The unit supports a 10/100Mbps auto-detecting network port. Use a CAT5 cable to connect the unit to the network, if the unit is going to be networked. This is an option not a requirement.

Intelligent Security & Fire Ltd

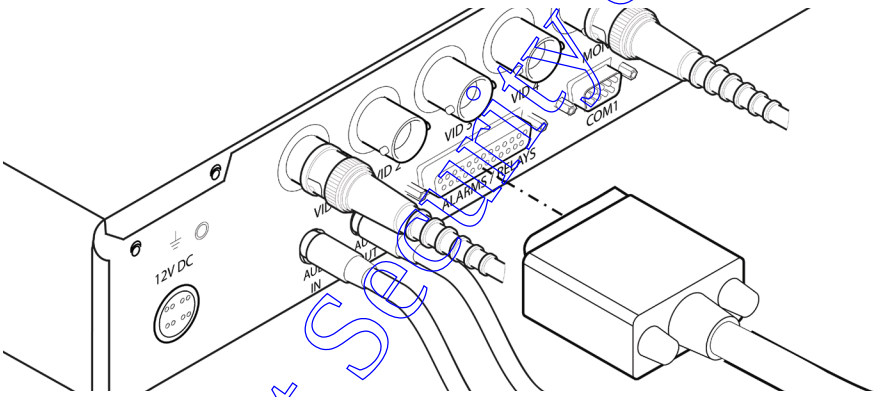
By default the unit is configured for DHCP i.e. the unit is automatically allocated an IP address from a network DHCP server. Most domestic routers (ie the standard wireless router supplied by an ISP) have a DHCP server embedded in them.

DHCP works by assigning an IP address at initial connection to the network. It is possible however that this IP address can change without notification i.e. following power failure. It is therefore recommended that the unit be allocated a fixed IP address. A fixed IP address can be assigned via the Configuration Menu pages:Network Settings->Network->IP Address.

When the unit is powered up, the network address can be found by viewing on a local monitor and navigating to Configuration Menu pages:System Settings->System->IP Address, or by accessing the router configuration pages and viewing the connected hardware, *refer to 'Configuring The Unit' for further guidance on locating the unit's IP address and for details of the default DNS (Domain Name Server) address.*

DNS (Dynamic Name Servers) is supported to allow the unit can be assigned a name. This removes the need for the unit to have a fixed IP address and makes it easier for a remote user to locate. The default DNS address for each unit is factory set as the serial number. This address can be found on the serial label on the unit or via the packaging the unit came in. The DNS name can be reset on the System->System configuration page.

Step 6 - Alarms / Relays



Alarms

The unit supports 4 normally open/closed alarm inputs via the back panel or one Global keyswitch input with camera specific inputs configurable as entry/exit alarms.

Relay Connector

Pin	**Alarm Input Connection**
1 - 4	Alarm Inputs 1-4
5	Auxiliary Alarm Input
6-11	Ground

Relays

The unit supports two 24V 200mA relays

Relay Connector

Pins	**Connection**
12 & 13	Relay 1 signal
14 & 15	Relay 2 signal

Intelligent Security & Fire Ltd

Step 7 - Connecting Serial Ports

Serial port offers RS-232 & RS-485 connectivity via the 'COM 1' port.

The Serial port has two main uses:

1. Connecting twisted pair telemetry for PTZ cameras.
2. Debug operations.

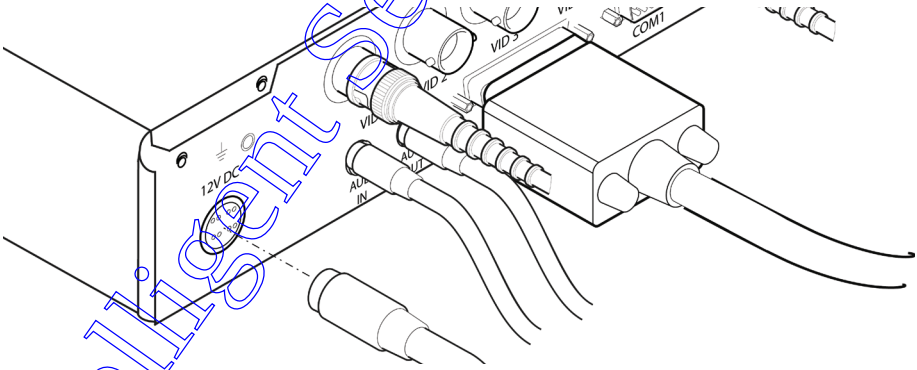
RS232

RS-232	Serial 1 Pin Allocation
Transmit Data (RXD)	2
Transmit Data (TXD)	3
Ground (GND)	5

RS485

RS-485	Serial 2 Pin Allocation
Transmit Data (RS485+)	1
Transmit Data (RS485-)	9
Ground (GND)	5

Step 8 - Connecting Power



Connect the 12v DC power adaptor (supplied) to the unit and then to the wall socket, or to a fused spur connection. To be compliant with wiring regulations in some countries, an Alarm/Security device should be connected to a fused spur and not a wall outlet socket (check local regulations before installation).

Intelligent Security & Fire Ltd

Configuring the Unit

The unit can be configured either on the local monitor or over the network using a PC with Internet Explorer or similar browser. Both have near identical menu interfaces.

Accessing the menus on a local monitor

The Configuration pages are displayed on a local monitor.

To access the Menu screen on a local monitor, single press the 'Next' (purple) button on the front of the unit or on the screen until the 'Menu' (Blue) button is displayed. Select the 'Menu' (Blue) button to open the Configuration option or use the mouse to click on the 'Configuration' button on the monitor screen to open the configuration options.

Accessing the menus on a PC web browser

Locating the Unit IP address

The IP address of the unit is required to access the webpages. It can be identified from the configuration menu pages using the local monitor, press the MENU button on the IR Remote Control and navigate to the System Settings->System menu to find the DHCP assigned IP address.

Note: *The unit can be installed in a DHCP network environment where an IP address, subnet mask and default gateway will automatically be allocated from the network DHCP Server (DHCP is enabled by default).*

Note: *If a DNS (Domain Name Server) address is not to be used, it is strongly advised that a fixed IP address be assigned (a DHCP assigned address can change without notification i.e. following power failure).*
A fixed IP address can be assigned via the Network Settings->Network menu.

For information on locating the unit's IP address via a PC and serial port connection, refer to Appendix D.

Default DNS Address

It is recommended that a DNS (Domain Name Server) address be configured. Assigning a recognisable name can help a remote user to locate the unit.

If no System name is allocated to the unit, the default DNS address will be:

machine serial number.yourdomain.com

- <machine serial number> is displayed in the System menu page and also on the underside of the unit.
- <yourdomain> is the name assigned to your DNS network.

The default DNS address can be renamed via the System->System menu. Following renaming, the DNS address will be:

yourname.yourdomain.com

- ' yourname' is the name assigned via the Network menu.

Note: *To activate an assigned DNS address, it will be necessary to reboot the unit. The unit can be rebooted via System Settings:Maintain-> Reset.*

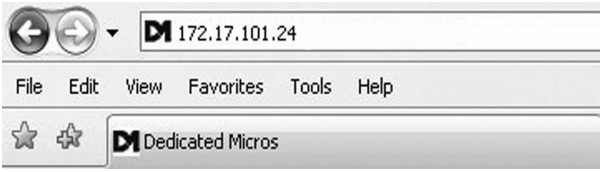
Intelligent Security & Fire Ltd

IMPORTANT: *To set the time and date on the unit, navigate to System Settings->Time and Date.*

Accessing the Configuration Webpages

The unit can be configured using the webpages. To access these:

1. Launch Internet Explorer (or similar web browser package).
2. Type the URL for the unit (IP or DNS address).



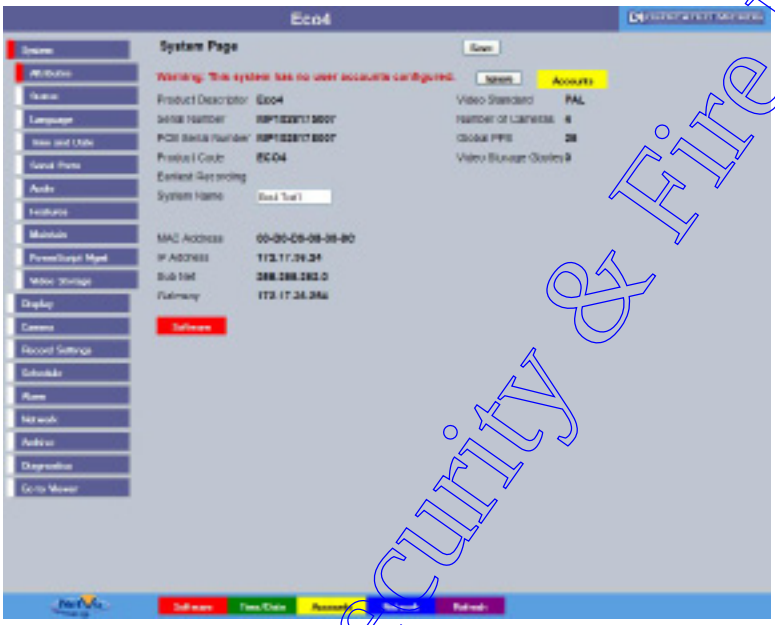
3. The Opening menu page will be displayed.

Intelligent Security & Fire Ltd

Navigating The Configuration Menus

The menu tree provides access to the configuration menus.

The configuration pages are navigated using the menu tree (displayed on the left of each page). Selecting one of the menu options with the supplied USB mouse will display the relevant page. Associated sub-menus will then be available.



Relevant menus can also be accessed directly from other menu screens via the coloured softkey options shown at the base of each menu. The options available will depend on the menu being viewed. Select a softkey option by pressing either the corresponding button on the IR Remote Control (if viewing the menus locally), or by selecting the relevant option via the PC mouse (if viewing the webpages).

Note: *Any changes made via the webpages are automatically saved when the page is closed. To 'manually' save changes, select the Save option.*

Using the Front Panel Interface

The Configuration and Viewer menus can be navigated via the unit's front panel softkey interface (via a connected local monitor).

Use the colour bar (Red, Green, Yellow, Blue and Purple) to directly access the corresponding function displayed on the menu screen i.e. red panel to select the red option.

IMPORTANT: *Use the front panel softkey interface in conjunction with a USB mouse.*

Note: *See below for information on entering alpha-numeric data.*

Entering Alpha-Numeric Data via a Local Monitor

Numeric or text data is entered using the on-screen Virtual Keyboard (Arrow Key Editor).

To display the Virtual Keyboard, highlight the relevant text input box and double press the left button of the USB mouse. The Virtual Keyboard is displayed.

Intelligent Security & Fire Ltd

Use the cursor to select a character. Select 'Submit' to enter details, select 'Cancel' to exit without entering any text.

Note: *Any USB Keyboard (not supplied) can be connected via one of the USB ports on the unit. The USB Keyboard can then be used to enter alpha-numeric data via the local menus.*

Using a USB Mouse or the Webpages

Navigate the menus by clicking the tabs displayed on the left of the menu headings (on the menu tree). The first option is highlighted with a red tab. Select a main menu heading to open a drop down list of further sub-options.

Highlight an editable field by clicking on it directly.

If viewing pages locally, enter alpha numeric data via the Arrow Key Editor (see above). If viewing remotely, enter via the PC keyboard. If available, click on the drop down menus to select settings.

Note: *A selected item in the drop down list will appear highlighted.*

Navigating away from a page (clicking on a different option on the menu tree) will automatically save any changed settings. To undo changes made to any menu, select the Refresh (Purple) option.

Intelligent Security & Fire Ltd

Main Menu

When first accessing the unit, the main menu will be displayed. This menu allows access to the Configuration menus, the Viewer menus and also several Download options.

Note: *The Download options will only be available if viewing remotely via an IP connection.*

Select the Configuration menu tab to access the unit's Configuration menus, *refer to 'Navigating the Configuration Menus' for further guidance.*

Select the Viewer menu tab to access the unit's Viewer function, *refer to 'Unit Operation' for information on the numerous Viewer features.*

Select the Download menu tab to access the various Download sub-options. Select from:

• Product Manual	Select to open an electronic version of the Installation & Operation Guide.
• ObserVer Manual	Select to open an electronic version of the NetVu ObserVer User Guide. NetVu ObserVer is a free video management software package from Dedicated Micros that allows users to seamlessly view distributed images from any 'NetVu Connected' product.
• NetVu ObserVer	Select to download the NetVu ObserVer video management software.
• Java (JRE)	Select to download the Java (JRE) software (from the unit). This software is required to successfully view Configuration and Viewer menus remotely.

IMPORTANT: *By default, no Usernames and Passwords are required to access any of the various menus. Usernames and Passwords can however be added to regulate access to the Configuration and Viewer menus, refer to the 'Display Settings-> User Accounts' menu for information on establishing Usernames and Passwords.*

Intelligent Security & Fire Ltd

System Settings

The menus under the System Settings heading allow the unit's core settings to be viewed, changed and the system software upgraded.

The System option displays details about the unit including the IP address, unit serial number, MAC address and software version.

The Unit Status page displays information about the unit's operating condition, shows how long the unit has been operating and the reason for the last reset. It also shows camera status and displays any failed cameras.

The Alarm Status page shows which contacts are open, which zones are in alarm and which relays are operating.

The About page allows access to numerous system information pages.

The Logs page allows access to various system logs. All logs located within the log folder on the unit will be available for viewing in text format.

The Language page allows the system language to be set. The language can also be changed for the current session only.

The Time and Date page allows the unit time and date settings to be adjusted, including setting the timezone.

The Serial Ports page allows each of the four serial ports to be individually configured for one of a range of operations, including; debug, PPP and telemetry.

The Audio page shows the settings available for each of the audio channels and allows configuration of audio quality.

The Features page allows control of the different features that are available within the software including Email reporting, webcam support and control of the display resolution.

The Maintain page allows the current configuration to be saved, and for previously saved settings to be loaded. It also enables easy upgrade of the system software.

The PowerScript Mgmt page allows installed PowerScripts to be activated/deactivated on start-up.

The USB Config. page allows one of the units USB sockets to be used as an external storage output. A high capacity USB device could then be connected and used to store recorded video images.

Intelligent Security & Fire Ltd

System

This menu shows the general information about the unit including the version of software installed, the unit's serial number and the allocated DHCP IP address.

Product Descriptor	Details the product model.
Serial Number	Identifies the serial number of the specific unit.
PCB Serial Number	Displays the PCB (Printed Circuit Board) serial number of the unit.
Product Code	Displays a code identifying the unit's specification.
Earliest Recording	Displays the date/time of the earliest recording held on the unit.
System Name	This field can be edited to allocate a name to the unit. This is displayed when the unit is accessed via NetVu ObserVer and is sent when transmitting information to a Remote Video Response Centres (RVRC).
Video Standard	Displays the video standard adopted by the unit i.e. PAL, NTSC.
Number of Cameras	Shows the number of camera channels on the unit.
Video Storage Gbytes	Highlights the available video storage capacity in Gigabytes.
MAC Address	This is the MAC address assigned to the unit.
IP Address	This is the IP address allocated to the unit.
Sub Net	This is the subnet of the network where the unit is located.
Gateway	This is the IP address of the default gateway (router) assigned by the DHCP server.
Software (Red)	Select this option to display installed software information (below).
Time/Date (Green)	Select to open the System->Time and Date page.

Intelligent Security & Fire Ltd

Dedicated Micros ©2011

Accounts (Yellow)	Select to open the Display->User Accounts page.
Network (Blue)	Select to open the Network->Network page.
Refresh (Purple)	Refreshes the information on the current page.

Software Menu

Software Revision	This identifies the version of software the unit is running.
Webpage Revision	This identifies the webpage version the unit is running.
Framestore Revision	This identifies the Framestore Revision the unit is running.
PC Apps Revision	This identifies the revision archive of the Viewer and associated PC Apps software.
Boot Software Rev	Displays the infrastructure componentry software revision.
Applet Version	This identifies the applet version installed on the unit.

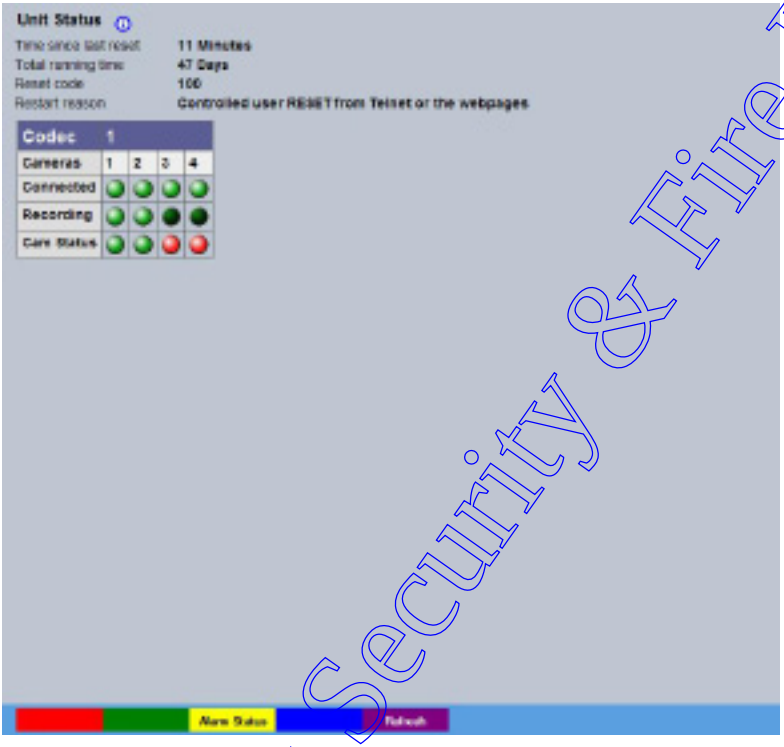
Note: *Refer to 'Display Settings->Viewer Defaults' for guidance on using a remote applet (this can lessen load times when accessing multiple DVRs/Servers).*

System (Red)	Select this option to return to the System menu.
About (Blue)	Select to open the Status->About page.
Refresh (Purple)	Refreshes the information on the current page.

Intelligent Security & Fire Ltd

Unit Status

This menu details information regarding the status of the unit, notably the total time the unit has been operating and the time since its last reset. Status log information can also be exported via the 'Export Logs' option to a USB device.



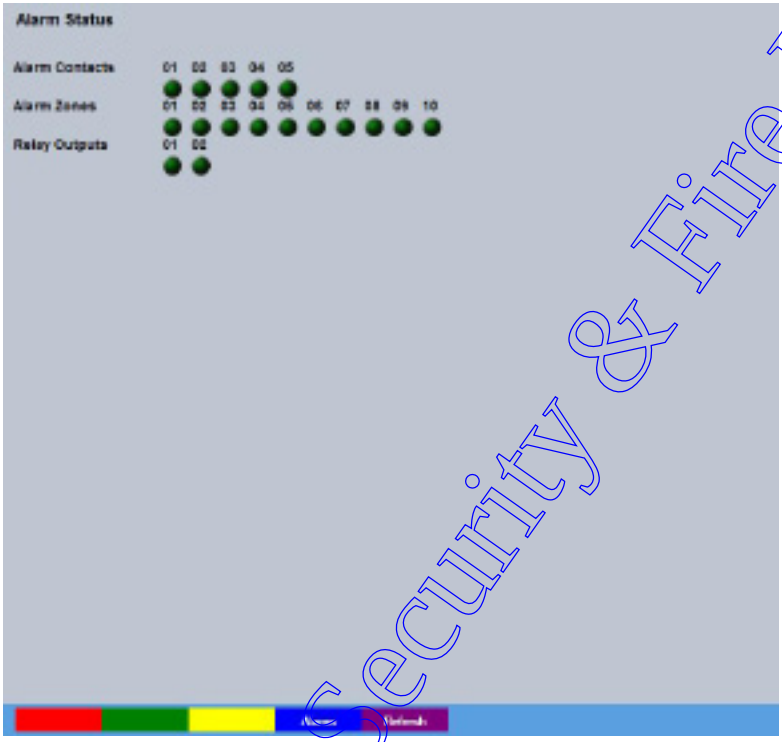
Time since last reset	Details the time since the unit was last reset.
Total running time	Details the total time the unit has been operational.
Reset code	The last reset code used is displayed.
Restart reason	The reason for the last restart is displayed i.e. Controlled User Reset.
Codec	One codec is installed within the unit. .
Cameras	Cameras assigned to the codec are displayed..
Connected	Those camera channels with cameras connected will be highlighted light green. Those not in use will appear dark green.
Recording	Those camera channels that are currently recording are highlighted light green. Those not recording will appear dark green.
Cam Status	Camera channels that are functioning correctly will be highlighted light green. Those deemed to have failed will appear red. Camera channels without connected camera will appear dark green.
Alarm Status (Yellow)	Select to open the Alarm Status page (below).
Refresh (Purple)	Refreshes the information on the current page.

Intelligent Security & Fire Ltd

Dedicated Micros ©2011

Alarm Status

This menu details information regarding the status of the unit's alarm contacts, alarm zones and relay outputs.

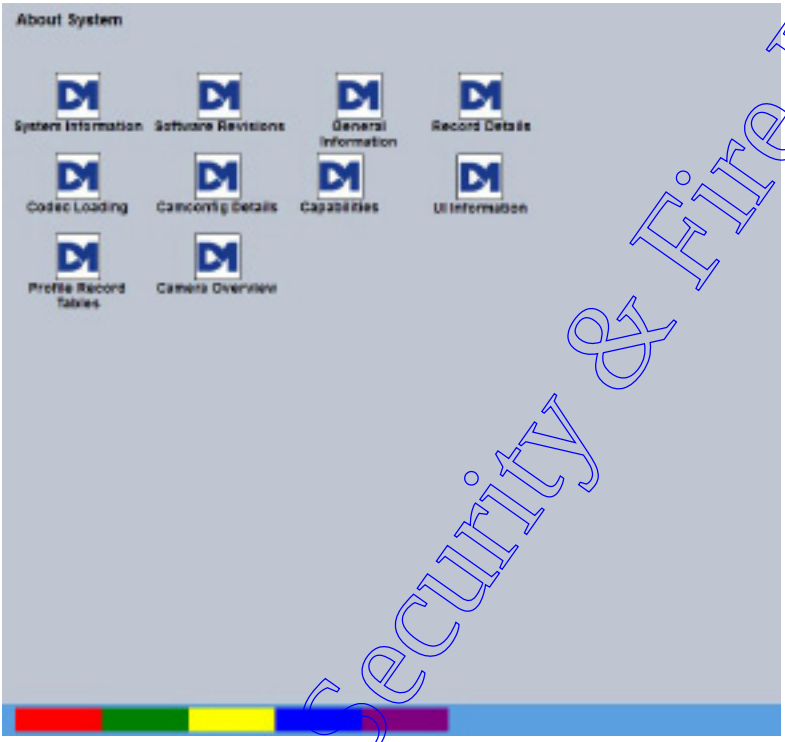


Alarm Contacts/Zones/Relay Outputs	Alarm Contacts, Alarm Zones and Relay Outputs that are in an 'active' state (alarming) are shown light green. 'In-active' ones appear dark green (not illuminated).
Alarms (Blue)	Select to open the Alarms page (above).
Refresh (Purple)	Refreshes the information on the current page.

Intelligent Security & Fire Ltd

About

This menu allows access to numerous system information pages. Select the an icon to view the relevant pages.



System Information	Select to open the System menu. System information will be displayed, *refer to System Settings->System for guidance on the information available*.
Software Revisions	Select to open the Software Reference menu. Software information will be displayed, *refer to System Settings->System->Software Menu for guidance on the information available*.
General Information	Select to open the General Information menu. This menu details the current recording profile in operation i.e. Set, Unset or Override. Currently enabled features are also shown. Features are enabled via the Features menu (System Settings->Features). Installed drive data is also shown.
Record Details	Select to open the Record Details menu. For each camera, the camera type and class is shown, plus whether it is currently recording. The recording profile for each camera is also detailed. Record settings can be configured for each camera via the Record Profile menu (Record Settings->Profile Record).
Codec Loading	This page details the demands placed on the codec in the form of CIF Usage (per sec) and Bitrate Usage (kbps).

Intelligent Security & Fire Ltd

Dedicated Micros ©2011

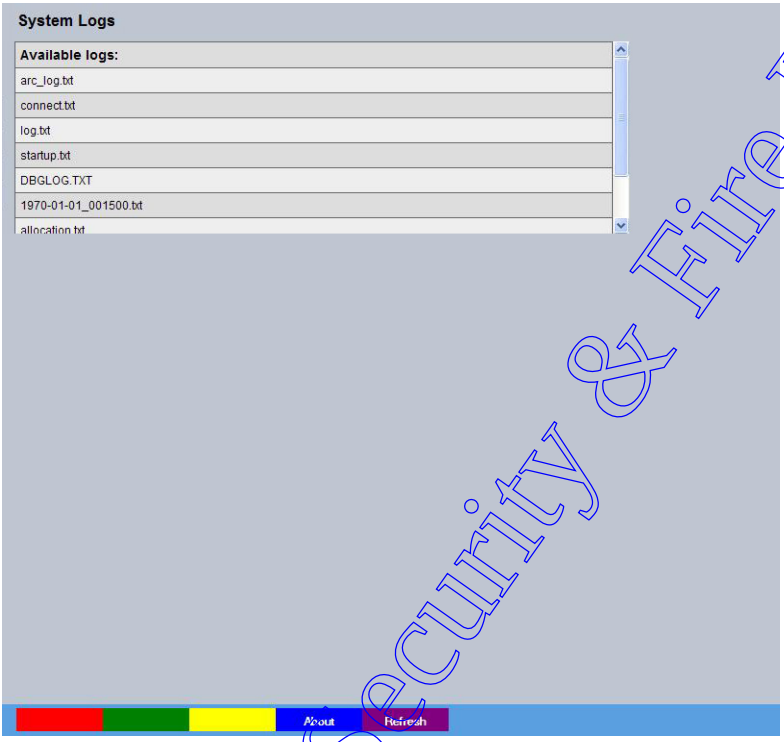
Camconfig Details	Select to open the Camera Attributes menu. This menu provides detailed information on the type of camera.
Capabilities	Select to open the Capabilities menu. This menu details the function capabilities of your unit.
UI Information	Select to open the UI (User Interface) menu. This menu details basic information regarding your unit. The java applet path is also shown. The default location will always be the applet installed on the unit. If accessing multiple units via a remote connection, all can be assigned the same Viewer applet. This will lessen the load time required when accessing different DVRs/Servers, *refer to the Viewer Defaults menu for further guidance (Display Settings->Viewer Defaults)*.
Profile Record Tables	Select to open the Profile Record Tables menu. This menu thoroughly details the preconfigured recording settings.
Camera Overview	This menu provides a setup link to allow the settings on each individual camera to be adjusted

Note: *Refer to Appendix A for a description of 'About' menu pages.*

Intelligent Security & Freedom

Logs

The log files stored in the camera can be accessed from this page. Selected logs are displayed on the page below.



About (Blue) — Select to open the System->Status->About page.

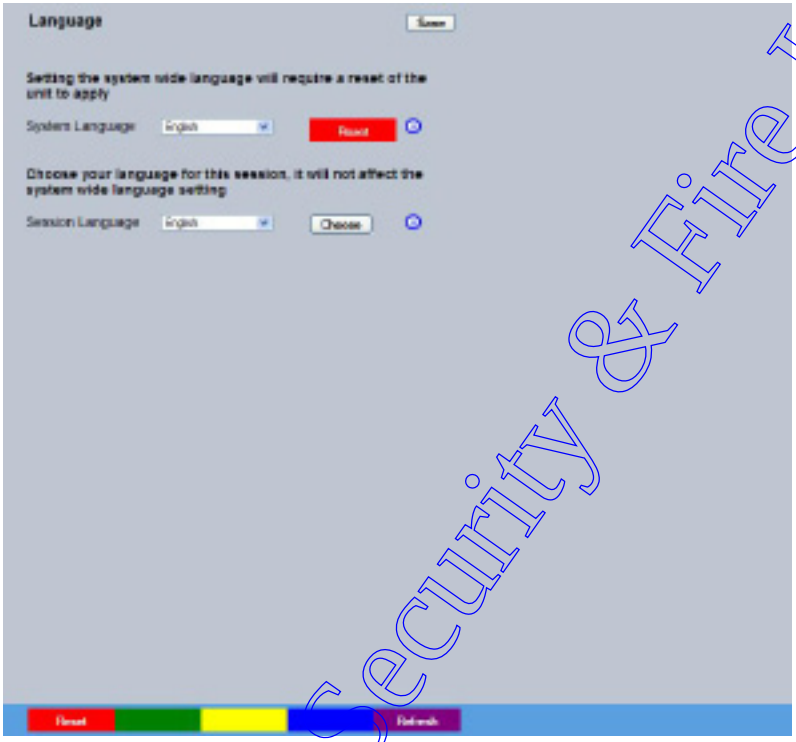
Refresh (Purple) — Refreshes the information on the current page.

Intelligent Security & Fire Ltd

Dedicated Micros ©2011

Language

This menu allows the system language to be set. Changing the System Language will effect all menu pages. If required, the language can also be changed for the current session only.



System Language	Select to change the system language setting.
Reset (Red)	Select to reset the unit.

Note: *The unit MUST be reset to implement system language changes, refer to System Settings->Maintain for guidance on resetting the unit.*

Session Language	Select to change the language settings for the current session only.
Choose	Select to immediately activate session language changes.
Reset (Red)	Select to cycle the power to the unit.
Refresh (Purple)	Refreshes the information on the current page.

Intelligent Security & Fire Ltd

Time and Date

This menu allows the time and date to be set on the unit. Required timezone information can also be established and the unit time synchronised to that of the PC being used to view the webpages.

System Time	The current system time and date is displayed.
Current Time Zone	Displays the currently selected time zone settings.
Time Format	As default, the time displayed is in 12 hour format. This can be changed to 24 hour if required.
Date Format	As default, the date is entered dd/mm/yy. It can also be displayed as mm/dd/yy or yy/mm/dd.
Set Time	Enter a current time for the unit.
Set Date	Enter a current date for the unit.
Set Time (Green)	When current time/date as been entered, select this button to implement changes.
Time Zone	Select the relevant timezone offset from the accompanying drop down menu.
SNTP Server	A Simple Network Time Protocol (SNTP) server allows external devices to connect and set their current date and time settings to that of the SNTP. If required, enter the SNTP server IP address here.

Note: *It is recommended that an SNTP server is configured. Suitable networked SNTP servers can be found here: http://support.ntp.org/bin/view/Servers/NTPPoolServers*

Alternatively most DHCP and DNS servers also run SNTP services. Contact your system administrator for further assistance.

Intelligent Security & Fire Ltd

Dedicated Micros ©2011

PC Time	Displays the system time of the PC currently being used to view the webpages.
Sync Time (Blue)	Use this button to synchronise the time of the unit to that of the PC being used to view the webpages.

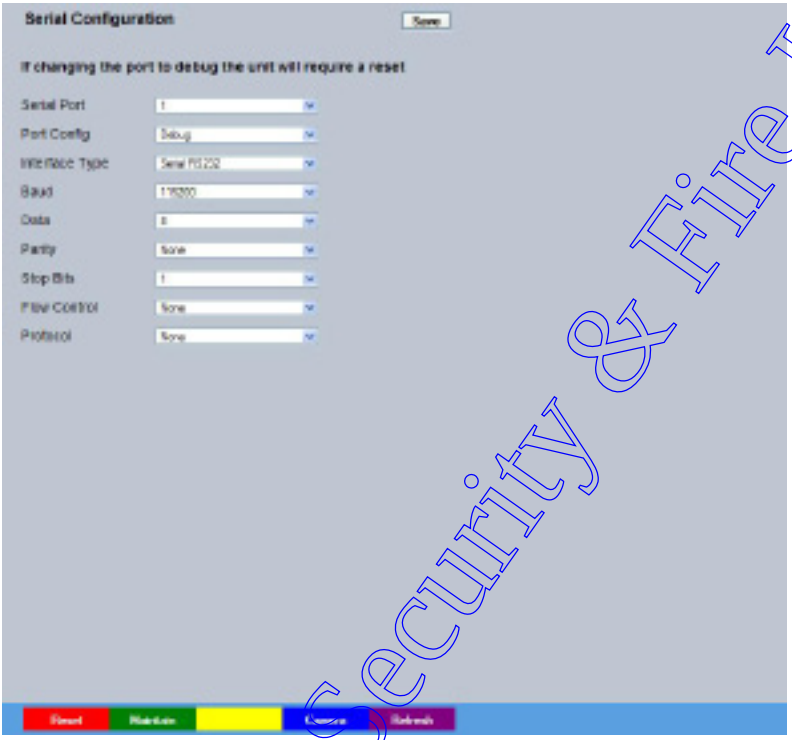
Note: *The PC Time and Sync Time options will only be available if viewing the menu via the webpages.*

System (Yellow)	Select to open the System -> Attributes Page.
Refresh (Purple)	Refreshes the information on the current page.

Intelligent Security & Fire Ltd

Serial Ports

This menu allows configuration of the unit's Serial connection. Refer to 'Installing the Unit' for installation information.



Serial Port — These are two serial ports available.

Note: *Each D type connector can be utilised by two serial connections by assigning RS232 and RS485 to the same connector. A cable will have to be created that connects the relevant output pins to the correct device.*

Port Config — The serial ports can be configured to specific uses. Select from:

None	Switches port off
Debug	Sets port for serial communications
PPP	Sets port for Point to Point Protocol
Telem	Sets port for Telemetry purposes
Comm	Sets port for Comms purposes
General	Sets port for general purpose connections
LED Box	Sets the port for connection to a LED Status Box.

Note: *It is recommended that Serial port 1 be set for 'Debug' operations.*

Interface Type — Choose the type of serial interface being used. Select from RS232, RS485 or RS422.

Intelligent Security & Fire Ltd

Baud/Parity/Data/Stop/Flow Control	These options allow the Serial port communication settings to be configured.

Note: *When a telemetry protocol is selected, these settings will default to pre-determined values and should not normally be altered.*

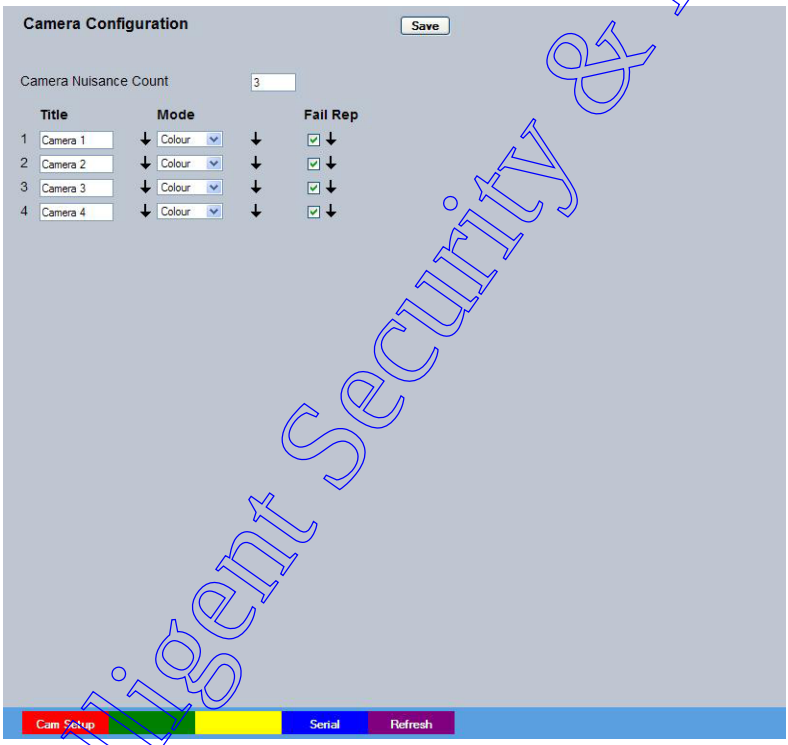
Protocol	This is a drop down list of serial telemetry protocols supported by the unit.

Note: *Refer to 'Appendix F' for a specification containing a full list of supported telemetry protocols.*

Reset (Red)	Select to Reset the unit.
Maintain (Green)	Select to open the System->Maintain page.
Camera (Blue)	Select to open the Camera Configuration page (below)
Refresh (Purple)	Refreshes the information on the current page.

Camera Configuration

This page allows configuration of some features on all 16 cameras available to the unit.



Title	Titles assigned to each camera are displayed.
Mode	The settings will default to 'Colour'. If Monochrome cameras are used, select 'Mono'. Selecting 'Mono' will remove colour patterning. If a particular channel is not in use or the camera has failed, select 'Not Connected'. 'Remote Codec' is used for NetVu Connected video sources.
Term	The unit will automatically terminate the camera input with 75Ω. This should be disabled if the video feed is looped through to another device.

Intelligent Security & Fire Ltd

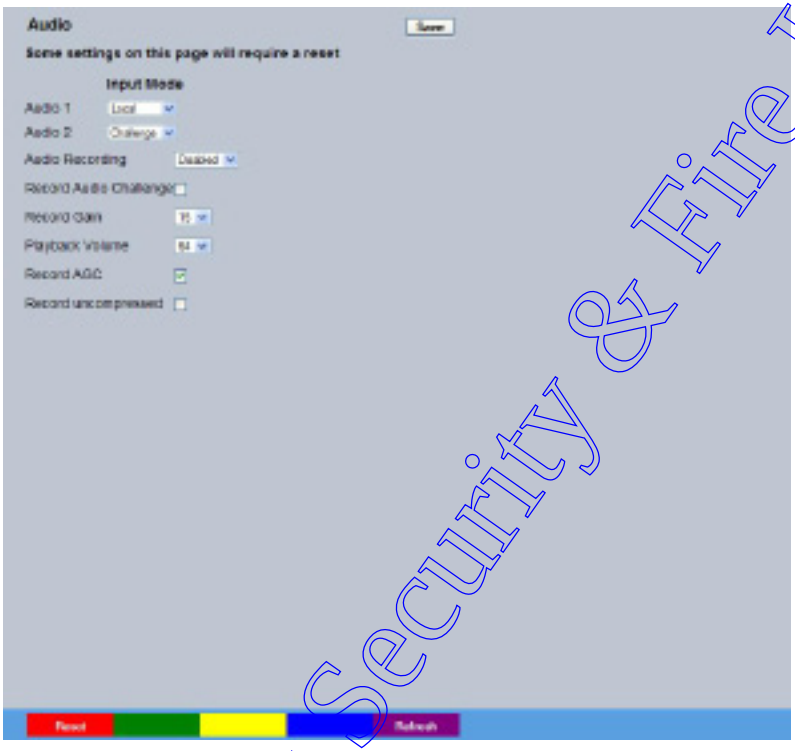
Fail Rep	Select this option to activate a Failure report in the event of camera connection failure (video loss).
Buzzer	Select this option to activate the onboard buzzer to report in the event of camera connection failure (video loss).
Cam Setup (Red)	Select to open the Camera->Setup page
Serial (Blue)	Select to open the System->Serial page
Refresh (Purple)	Refreshes the information on the current page.

Intelligent Security & Fire Ltd

Dedicated Micros ©2011

Audio

The Audio menu allows settings for the bi-directional audio channel to be edited. Audio can be recorded from line input. Challenge audio i.e. originating from an Operator using NetVu Observer at a Remote Video Receiving Centre (RVRC) can be recorded.



Audio 1 / 2	Select the intended use of the incoming audio i.e. 'Local Playback', or 'Challenge' for each input, or select 'Disabled' to deactivate.
Audio Recording	Select 'Enable' to activate Audio recording.
Record Audio Challenge	Select this option to record an audio challenge originating from an operator at an RVRC.
Record Gain	This option allows the Record Gain level to be set. This is the base setting from which the AGC (Automatic Gain Control) will operate. Select from 1 to 15. The default and recommended setting is 15.
Playback Volume	Select a volume setting between 1 to 64 for audio playback.
Record AGC	Select this option to activate the Automatic Gain Control (AGC) function. AGC amplifies audio until a recordable (usable) signal is produced. Please note that this may result in increased background noise/distortion.
Record uncompressed	Select this option to record audio in an uncompressed format.

Note: *Recording in uncompressed format will significantly increase the disk space used.*

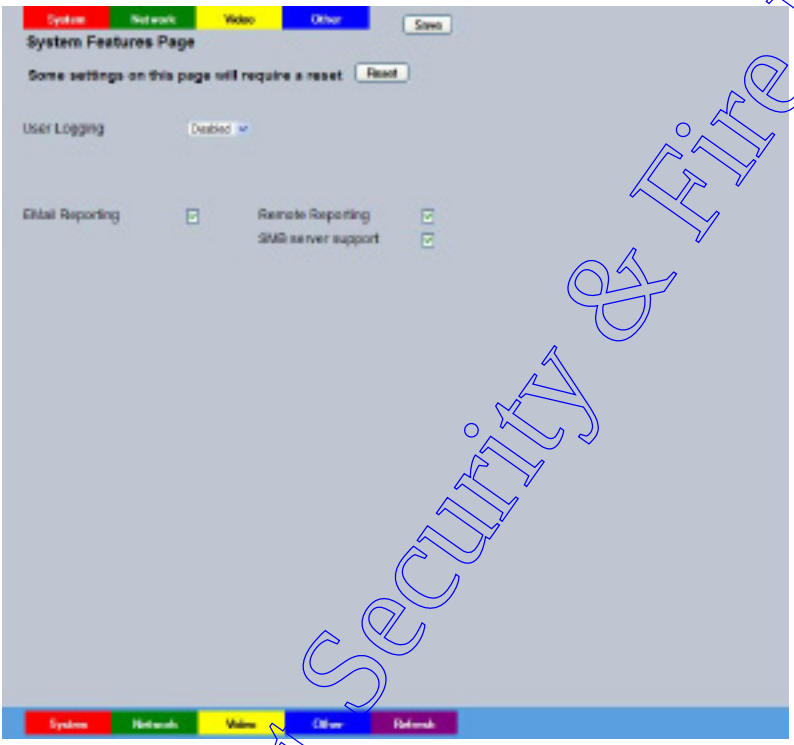
Refresh (Purple)	Refreshes the information on the current page.

Intelligent Security & Fire Ltd

Features

These menus enables the activation of numerous system features. Features are grouped within four sub-menus: System, Network, Video and Other.

System



User Logging	Enable this option to activate User Logging, *refer to 'Appendix C' for further information regarding the User Activity Logging function*.
Enable External Modules	Select to enable any connected RS485 alarm modules.
Email Reporting	Select this option to activate the Email Reporting function, *refer to 'Network Settings-E-mail' for more information*.

Note: *When de-selected here, the 'Email Reporting' menu will no longer be displayed in the menu tree.*

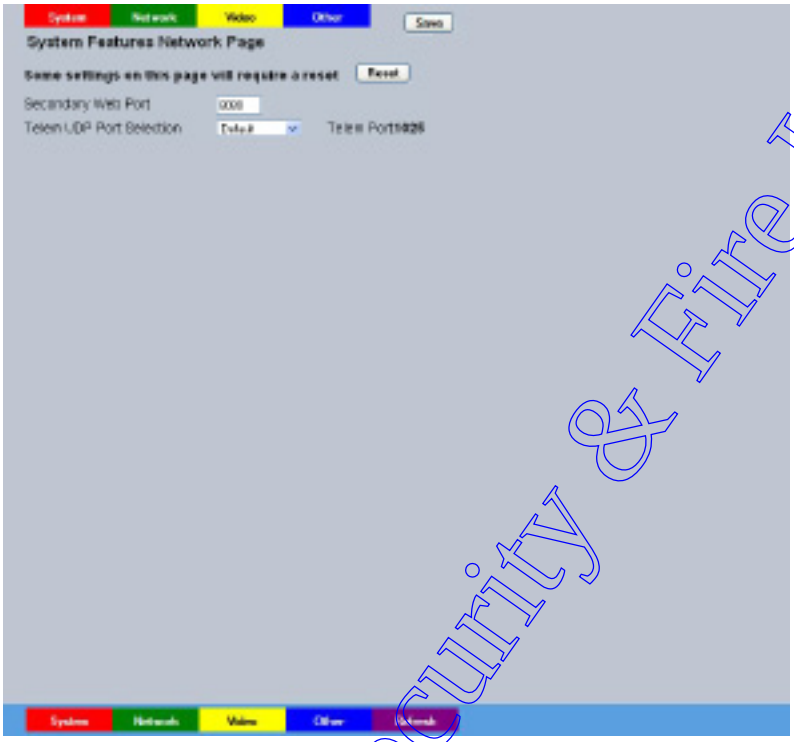
Remote Reporting	Select this option to activate the Remote Reporting function, *refer to 'Network Settings-Remote Reporting' for more information*.

Note: *When de-selected here, the 'Remote Reporting' menu will no longer be displayed in the menu tree.*

Refresh (Purple)	Refreshes the information on the current page.

Intelligent Security & Fire Ltd

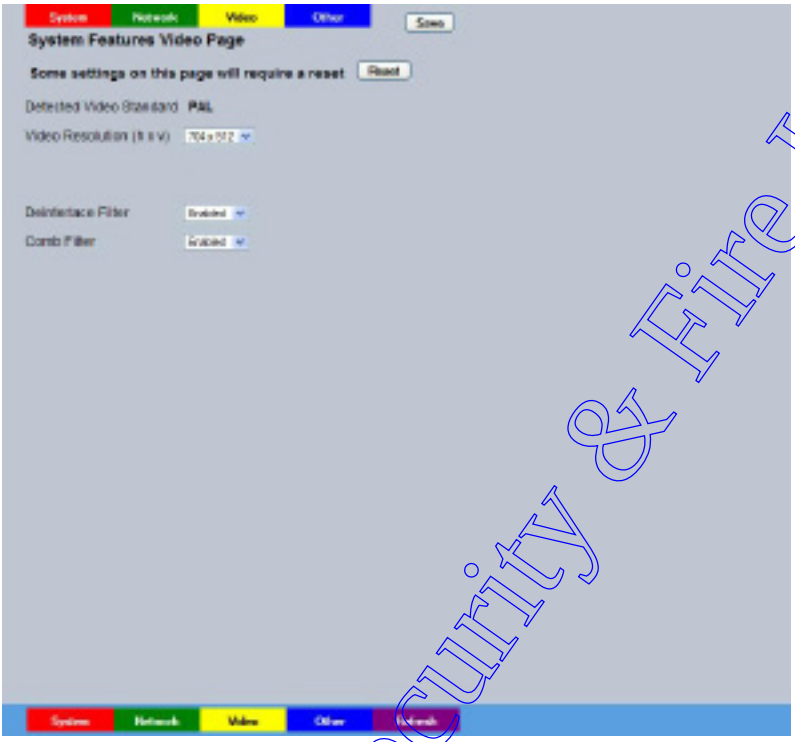
Network



Secondary Web Port	If the default port setting for web serving has already been allocated, it is possible to configure a second port number i.e. the secondary web port can be set to 8000 if the default web port (80) is blocked by the network or firewall.
Telem UDP Port Selection	Select 'Automatic' to enable the unit to select a suitable port for telemetry purposes. Select 'Default' to use the default port settings (1025). Select 'User Defined' to use settings entered in the 'Telemetry Port' option.
Refresh (Purple)	Refreshes the information on the current page.

Intelligent Security & Fire Ltd

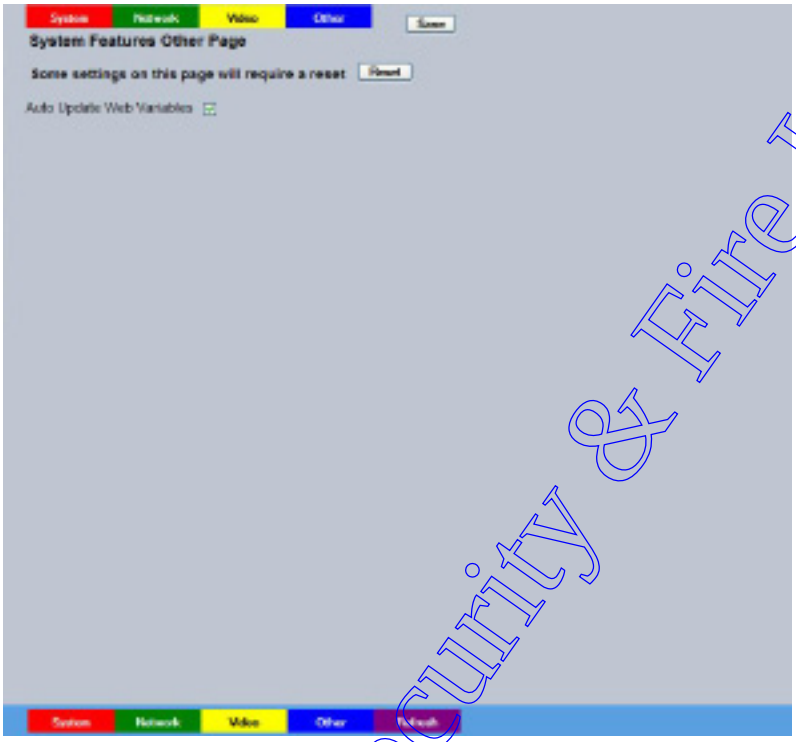
Video



Detected Video Standard	The unit automatically detects the video standard being used i.e. PAL/NTSC.
Video Resolution (h x v)	Edit the resolution settings. This will be the fundamental resolution for the unit.
Deinterlace Filter	When Enabled, this option will improve the appearance of moving objects by applying a deinterlace mask that minimises the comb effect that can be visible when recording high motion scenes in 4CIF mode. It is recommended that this option be enabled when recording in 4CIF mode.
Comb Filter	Enable this option to activate the Comb Filter function. Comb Filter can help improve the fine details of a video signal image by filtering the luminance and chrominance separation process.
Disable Transcoding	Select to disable the unit's transcoding capabilities. In normal circumstances this should always remain enabled, however it can be useful to disable the feature when conducting maintenance.
Refresh (Purple)	Refreshes the information on the current page.

Intelligent Security & Fire Ltd

Other



Auto Update Web Variables	Configures the unit to update all system variables required for an automatic upgrade without requiring confirmation. Do not check this box if you run a customised applet.
Refresh (Purple)	Refreshes the information on the current page.

Intelligent Security & Fire Ltd

Maintain

This menu allows the unit to be reset and a software upgrade to be performed via a connected USB device. Current unit settings can also be saved for future use and previously saved settings restored.

Configuration

Default (Green) — Select to return the unit to its factory default settings.

Note: *Selecting the Default button will cause the system to reboot.*

Save (Purple) — Select to save current unit settings to the selected media.

Restore (Blue) — Select to restore previously saved settings from the selected media.

Note: *Selecting the Restore button will cause the system to reboot.*

To/From — Select the relevant media device to save to or restore from i.e. USB device.

Export Logs

Export Logs (Yellow) — Select to export all Logged data to a connected external device.

To — Select the relevant media device to save to export to.

Intelligent Security & Fire Ltd

Dedicated Micros ©2011

Server

Reset (Red) Select to cycle the power to the unit.

IMPORTANT: *To upgrade the unit, insert a media device containing relevant software upgrades and select 'Reset'.*

Note: *For the latest software upgrades, please refer to the Dedicated Micros website: www.dedicatedmicros.com*

Intelligent Security & Fire Ltd

PowerScript Mgmt

This page enables you to select which PowerScripts are automatically run when the unit starts up. Use the tickboxes below to select which scripts you require and then click Save. You will need to restart your unit for the changes to take effect.

NOTE: *Clicking Save will alter DEFAULT.C, if you already have a custom PowerScript on your unit which uses the DEFAULT.C file, please contact your regional Technical Support before using this page.*

PowerScript Management
This page enables you to select which PowerScripts are automatically run when the unit starts up. Use the tickboxes below to select which scripts you require and then click Save. You will need to restart your unit for the changes to take effect.
NOTE: Clicking Save will alter DEFAULT.C, if you already have a custom PowerScript on your unit which uses the DEFAULT.C file, please contact your regional Technical Support before using this page.
Save
PowerScript
Run at Startup
Description
analytics.c
This file launches the appropriate analytics scripts based on the current licences
Reset
Save
Refresh

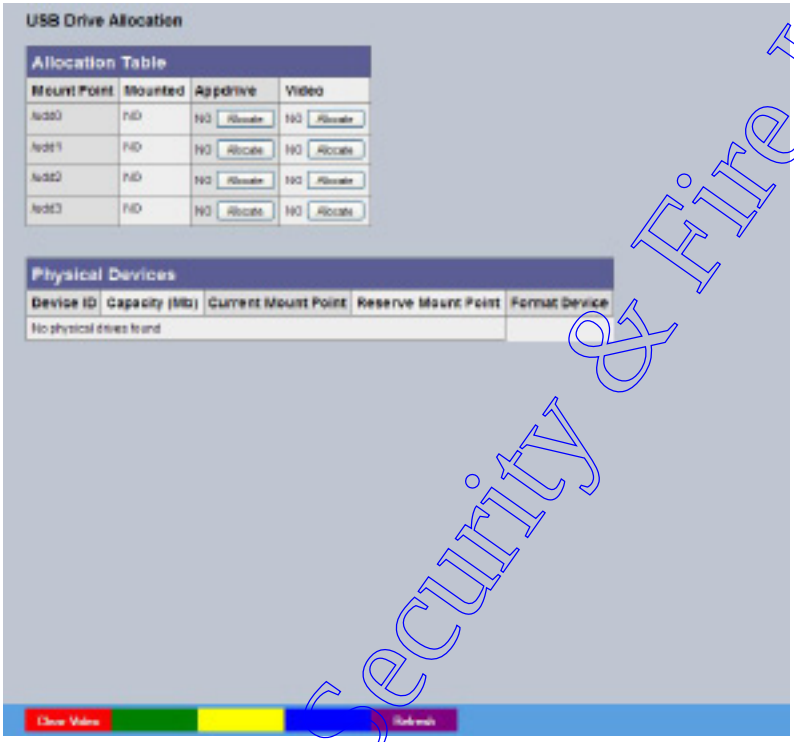
PowerScript	Identifies which powerscript is being configured to run
Run At Startup	Specifies whether the powerscript will run when the unit starts up
Description	Displays the description associated with the powerscript.
Refresh (Purple)	Refreshes the information on the current page.

Intelligent Security & Fire Ltd

Dedicated Micros ©2011

USB Configuration

This page allows one of the USB sockets on the unit to be configured for use as an external storage output. A high capacity USB device could then be connected and used to store recorded video images.

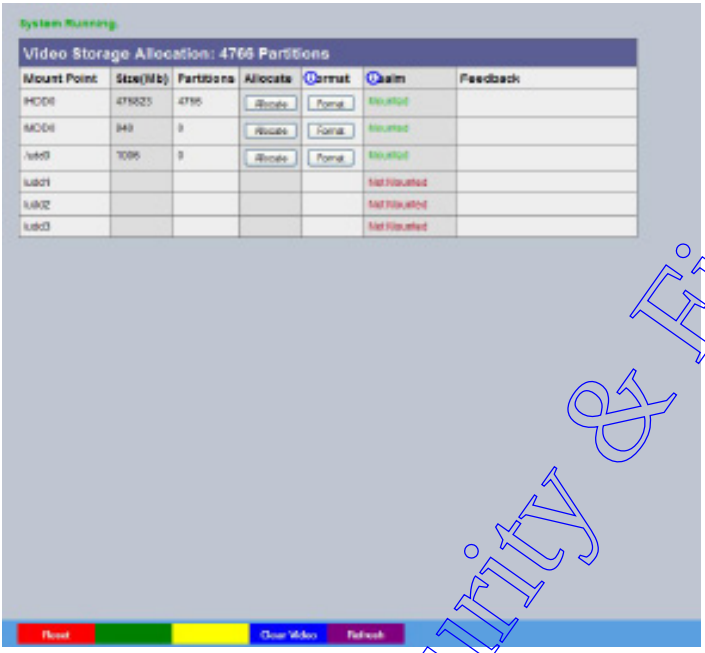


Allocation Table	The table allows a USB input to be assigned to the external storage output. Select the relevant 'Allocate' button.
Mount Point	Allows the available features to be assigned to the unit USB connections /udd0, /udd1, /udd2 and /udd3
Mounted	Shows whether the ECO4 has recognised the storage device.
Appdrive	Designate this USB storage as an appdrive allowing the unit to store application data such as where the web pages and main application binaries sit.
Video	Allocate this USB storage device as a video storage area
Physical Devices	Information relating to any connected USB media device will be detailed here. There is also the ability to format previously unused USB storage devices with the Dedicated Micros standard disk format to allow it to integrate with the ECO4.
Clear Video (Red)	This button will remove the reference to the video stored on the USB devices, allowing them to be overwritten. It does NOT delete the data instantly.
Refresh (Purple)	Refreshes the information on the current page.

Intelligent Security & Fire Ltd

Utilising USB Memory

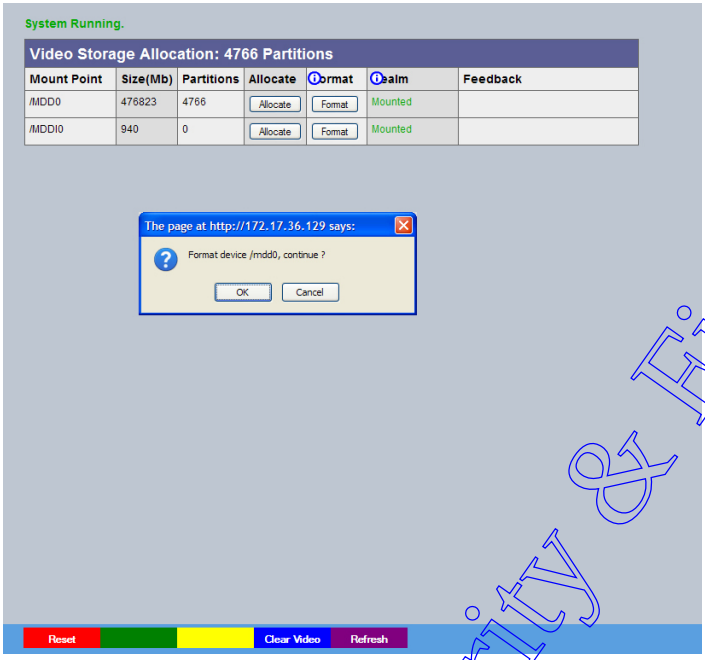
1. Navigate to System -> Video Storage.



The Video Storage Allocation table displays drives that are available for video recording. Entries with the prefix '/HDD0' indicate the units local hard drive (if installed), entries prefixed by '/udd0' are recordable media connected to the unit via USB sockets, an entry prefixed by '/mdd' is the installed SD card.

1. Plug a USB storage device into one of the available USB ports and click the purple Refresh button. The newly connected device will be displayed with a '/udd' prefix. The SD card (if installed) will also be displayed and can be allocated in the same way. USB devices will be prefixed udd, SD cards will be prefixed MDD.
2. The device may require formatting. DM recommends the device is formatted even if it was previously been used as video storage. Click on the 'Format' button adjacent to the device listing to prepare the device for recording.

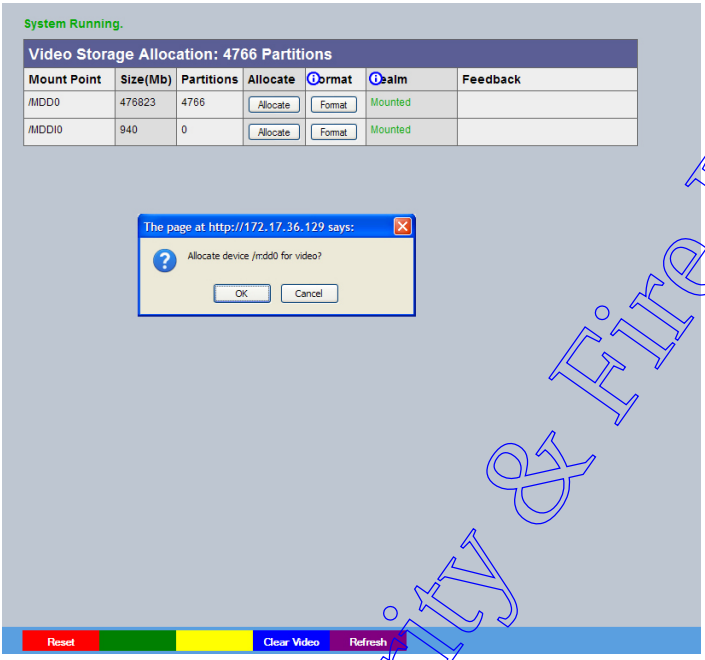
Intelligent Security & Fire Ltd



3. Allocate the formatted and mounted storage for video storage by clicking on the 'Allocate' button. Allocation takes between a few seconds and a few minutes, depending on the size of the drive, and the Feedback column will display information about the allocation process. The unit will require a Reset once allocation is complete.

Note: *The unit application drive is protected, if it is allocated the unit will only remove the video folder. Formatting any other device will remove all data. In either case recording on the system is halted while formatting and, if already allocated, the formatted device will be de-allocated as a video storage device*

Intelligent Security & Fire Ltd



The system displays a confirmation box to ensure the correct device has been selected. Click OK to confirm, then reboot the system. Once the power has cycled, the system will build the required PAR files ready for recording to commence, progress will be displayed in the Feedback column.

Note: *There will be a pause before recording begins, dependant on the size of the USB device as video partitions are built.*

Intelligent Security & Fire Ltd

Display Settings

The menus under the Display Settings heading allow the unit's Viewer display settings to be altered and User Account details to be viewed and changed.

The Viewer Defaults page allows the Viewer menu settings to be configured.

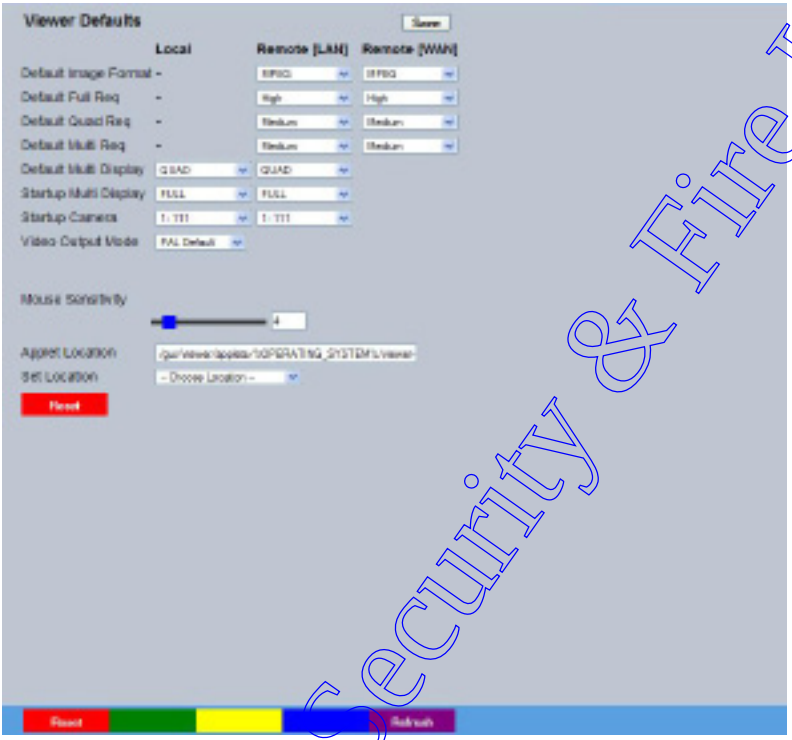
The Display page controls how the local monitor presents information, controlling whether text will be displayed, the colour of that text, and how long cameras being displayed in sequence will be shown on screen.

The User Accounts page helps protect configuration procedures by limiting access to specific users via accounts and passwords.

Intelligent Security & Fire Ltd

Viewer Defaults

This menu allows configuration of settings for the Viewer function. Refer to 'Operating The Viewer' for more information regarding this feature



Default settings can be configured for accessing the Viewer function via a local monitor and also remotely via a network connection. Local settings also dictate the display quality of video streams received from a remote client i.e. in Remote Monitor operation. Note that this does not affect live or playback images originating from local system cameras.

Local/Remote(LAN)/Remote(WAN)	Sets the default for Local use (with no bandwidth restriction), Remote use over a Local Area Network (where bandwidth could be high) and Remote use over a Wide Area Network (where bandwidth could be reduced).
Default Image Format	Images from connected cameras can be displayed in either JPEG or MPEG format.
Default Full Req	Images displayed full screen in the Viewer menus can be shown in either High Medium or Low resolution.
Default Quad Req	Images displayed in Quad format in the Viewer menus can be displayed in either High Medium or Low resolution.
Default Multi Req	Images displayed in Multi format in the Viewer menus can be displayed in either High Medium or Low resolution.
Default Multi Display	When accessing the Viewer function, select the display format which will initially be displayed.
Startup Multi Display	When accessing the Viewer function, select the display format which will initially be displayed.

Intelligent Security & Fire Ltd

Dedicated Micros ©2011

Startup Camera	When accessing the Viewer function, select the camera image which will initially be displayed. If one of the multi display formats has been selected via the 'Startup Multi Display' option, the camera channel selected here will be displayed in first (top left) position. Subsequent camera channels will be displayed in sequential order.
Video Output mode	Select the display output that best suits the viewing monitor. Typically PAL Default is most suited for a CRT monitor. Select from: PAL Default PAL Reduced VGA 800 x 600

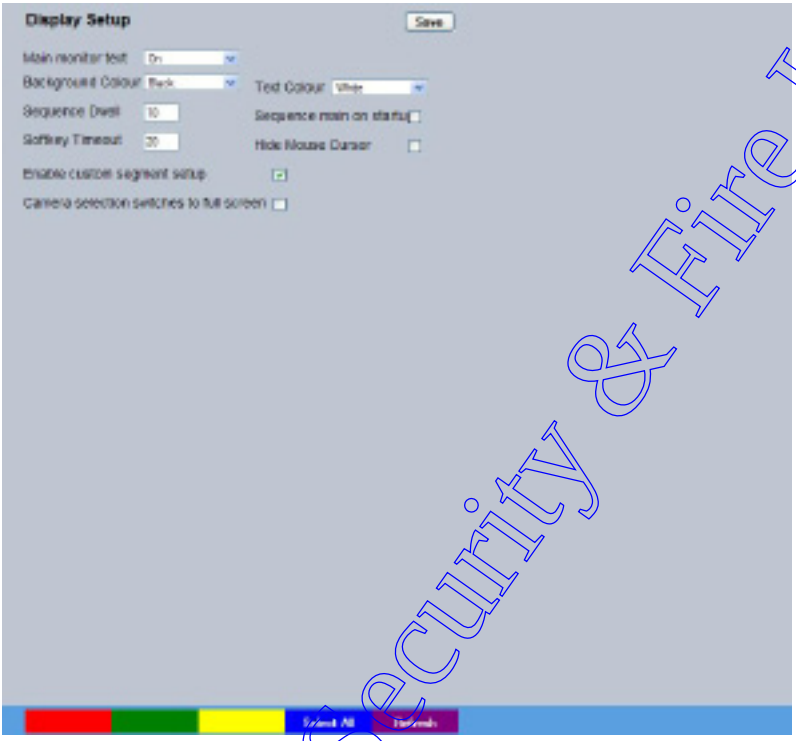
Note: *It will be necessary to reboot the unit to implement any change to the Video Output Mode. The unit can be rebooted via the Reset (Red) option.*

Mouse Sensitivity	The slider allows the sensitivity of the connected USB mouse to be adjusted. A figure between 1 and 20 can also be entered in the adjacent text box.
Applet Location	The location of the unit's Viewer menu applet is displayed. The default location will always be the applet installed on the unit. If accessing multiple units via a remote connection, all can be assigned the same Viewer applet. This will lessen the load time required when accessing different DVRs/Servers. For example, if a local unit and a remote DVR are to be accessed, it is possible to set the Applet location for both DVRs as the local unit. If viewing the unit remotely, Dedicated Micros provide a remote applet. This remote applet can be selected via the 'Set Location' option. The applet is located on the website (www.dedicatedmicros.com/software_release/index_firmware.php). Due to possible bandwith restrictions on the network the DVR is located, using this remote applet may improve data transfer speeds.
Set Location	Select the applet location. Choose from 'Default location' i.e. the applet installed on the unit; or the 'website' option i.e. the remote applet.
Reset (Red)	Select to reset the unit and implement any changes made to the 'Video Output mode' or 'Applet Location' fields.
Refresh (Purple)	Refreshes the information on the current page.

Intelligent Security Systems Ltd

Display

This menu allows configuration of monitor settings used when viewing camera images and text data.



Main monitor text	It is possible to select text to be displayed on the main monitor. The text displayed will include; time, date, mode of operation (Set, Unset or Override), camera number and camera title.
Background Colour	A black background appears by default around the text. It is possible to change the colour of this background. Select from the options available in the drop down list.
Text Colour	The colour of the displayed text can be changed. Select from the options available in the drop down list.
Sequence Dwell	The sequence dwell time can be set from 5 to 99 seconds. The dwell time is the period a camera's images are displayed before switching to the next camera in the sequence.
Sequence main on startup	Select to sequence live views from all connected cameras on the main monitor upon system start-up.
Softkey Timeout	The Timeout countdown starts when a coloured key is pressed. If no further press is registered before the timeout expires, the press is ignored and the display reverts.
Hide Mouse Cursor	The mouse cursor can be hidden by enabling this option.
Enable custom segment setup	Select to activate the custom segment setup feature. When selected, a user can configure a Quad or Multiscreen layout via the Viewer menu. The configured layout can include any camera in any available segment.

Intelligent Security & Fire Ltd

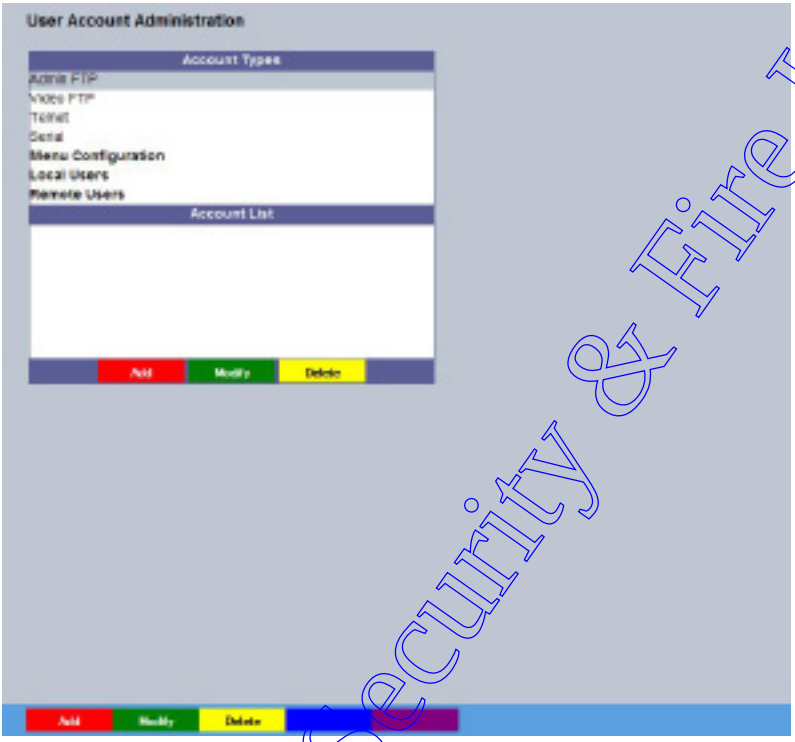
Dedicated Micros ©2011

Camera selection switches to full screen	Select to auto switch to full screen mode any camera channel selected from multi-display (selected via the Viewer feature).

Intelligent Security & Fire Ltd

User Accounts

The unit can protect configuration procedures by limiting access via usernames and passwords.



Account Types

The available account types for which users and passwords can be assigned privileges are:

- Admin FTP

  Assigning username and password requirements for the Admin FTP function will limit access to the unit via an FTP connection.

- Video FTP

  Assigning username and password requirements for the Video FTP function will limit access to the Video FTP archiving feature (used with NetVu ObserVer).

- Telnet

  Assigning username and password requirements for Telnet connections will limit Telnet access to the unit (Telnet can be used to upgrade the unit).

- Serial

  Assigning username and password requirements for Serial connections will limit access via a Serial link.

Intelligent Security & Fire Ltd

Dedicated Micros ©2011

- Menu Configuration

  Assigning Menu Configuration access privileges will limit access to the Configuration menus when viewed locally. When implemented, the user will be prompted for a username and password before access to the Configuration menus (via the main menu) will be granted.

- Local Users

  Assigning Local Users access privileges will limit access to the Viewer pages for local users. When implemented, the local user will be prompted for a username and password before access to the Viewer pages (via the main menu) will be granted.

- Remote Users

  Assigning Remote Users access privileges will limit access to the Viewer pages for remote users. When implemented, the remote user will be prompted for a username and password before access to the Viewer pages (via the main menu) will be granted.

When granting access privileges to Local and Remote Users, it is possible to limit access to specific cameras. Using the Camera Selection segment of the Add New Account menu, enter those cameras for which access will be permitted. Select the cameras in accordance with the input channel they're connected to on the rear of the unit. For example, if wanting to allow access to camera 1 to 3 inclusive, enter: 1-3. If wanting to grant access to cameras 1,3 and 6, enter 1,3,6. If no camera data is entered, access will be allowed to all connected cameras in both live and playback modes.

Note: *There are no default usernames and passwords for any of the Account Types. If none are assigned, access will be granted to all users and no request for a username and password will be made.*

Account List — When an Account Type is highlighted, details of users with access will be displayed.

Add — Highlight an administration feature i.e. Serial and select 'Add'. Enter the new User Name and Password. That user's name will now be displayed in the account list.

Modify/Delete — To modify or delete a user's settings, highlight the user in the list and press the relevant button to Modify or Delete. Control. Press the right directional button from the menu tree to access the Account List.

IMPORTANT: *If passwords are implemented and then forgotten, it is likely the unit will need to be returned to Dedicated Micros for unlocking.*

Intelligent Security Eng Ltd

Camera Settings

The Camera Settings menus allow configuration of cameras connected to the unit. Refer to the individual menus for further details.

The Camera Setup page allows the quick configuration of all connected local camera channels (with a dynamic preview available).

The Camera Overview menu details the general settings assigned to each of the local camera channels.

Intelligent Security & Fire Ltd

Dedicated Micros ©2011

Camera Setup

This *menu allows the configuration of active camera channels.*

Note: *Ideally any setup options available locally on the camera should first be used to best obtain a suitable image quality.*

Camera	Select a camera channel for review and adjustment.
Camera Nuisance Count	If a camera is intermittently losing connection (failing), the unit can be set to ignore incoming data from that camera (after the specified number of failures entered here). If the camera connection is restored and does not fail for 1 hour, the camera will be noted as operating correctly and the Nuisance Count reset.
Title	Assign a recognisable name to the camera. This will be displayed in all references to the camera in the both the Configuration and Viewer menus.
Type	The settings will default to 'Colour'. If Monochrome cameras are used, select 'Mono'. Selecting 'Mono' will remove colour patterning. If a particular channel is not in use or the camera has failed, select 'No Conn'.

IMPORTANT: *The menu options displayed will differ depending on the camera 'Type' selected here.*

Fail Report	Select this option to generate a Failure report in the event of camera connection failure.

Intelligent Security & Fire Ltd

Termination	The unit will automatically terminate the camera input with 75Ω. This should be disabled if the video feed is looped through to another device.
Telemetry	If a telemetry capable camera is connected, the appropriate control protocol should be selected from the accompanying drop down list, *refer to 'Appendix F' for a specification containing a list of supported telemetry protocols.*
Default to preset	If a telemetry camera has been assigned a preset position, select the chosen preset position here. Also enter the time period (in minutes) of inactivity which will result in the camera moving to its preset position, *refer to Viewer menus->Program Page for guidance on assigning camera presets*.
Colour	Select a colour value from -8 to +8 via the slidebar or enter a number directly into the accompanying textbox.
Brightness	Select a contrast value from -8 to +8 via the slidebar or enter a number directly into the accompanying textbox.

Intelligent Security & Integrated

Dedicated Micros ©2011

Camera Overview

This menu details the general settings assigned to each of the local camera channels. To edit the settings assigned to any of these cameras;

Click on Local Camera Setup to edit the settings held in the unit;

Click on 'Setup' to open the Setup menu on the connected video source.

Refresh (Purple) Refreshes the information on the current page.

Intelligent Security & Fire Ltd

Record Settings

The Record Settings menus allow configuration of the unit's record functions. Record settings can be configured for normal operation, on alarm, by schedule and for set holiday and weekend periods. Selected video data can be saved and protected. Refer to the individual menus for further details.

The Record page allows the basic Recording settings to be edited.

The Profile Record page allows the recording configuration to be based on specific priorities. The record rate and quality can be customised to respond appropriately to the alarms and time of day. A high degree of control and flexibility is possible using these options.

The Schedule page is used to configure the Timer Function, this enables the unit to automatically be put into set/unset mode at specific times on specific days.

The Holiday and Weekend page enables Set mode to be activated for individual dates i.e. public holidays or weekends.

The Protect Video page allows previously recorded data to be protected and retained. If needed, all recording can be halted and saved video deleted.

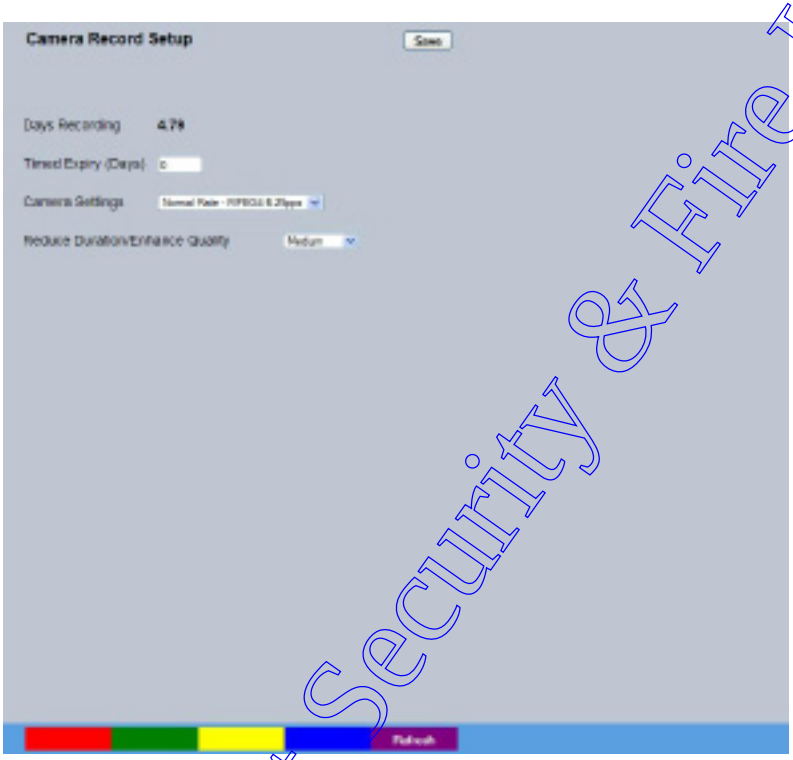
The AoE Setup page allows configuration of the units ATA over Ethernet (AoE) function. AoE is a network protocol designed for simple high-performance access of storage devices over Ethernet networks. Importantly the external storage device must be located on the same network as the unit.

Intelligent Security & Fire Ltd

Record

The unit has two pre-defined configurations available. As standard the unit can record at 6.25pps MPEG4 or 3pps JPEG recording on each camera.

These settings are individually configurable using the Profile Record page.



Days Recording	Displays the record duration possible using the current configuration.
Timed Expiry	If required, all stored recorded video can be permanently deleted after a set number of days. Set to '0' to de-activate this function
Camera Settings	Choose the rate of non alarm recording to be used from the range of preset recording profiles.
Record Duration/Enhance Quality	The recording duration can be limited to a setting of Low, Medium or High, allowing the recording quality to be enhanced for a shorter storage period.

Intelligent Security & Fire Ltd

Profile Record

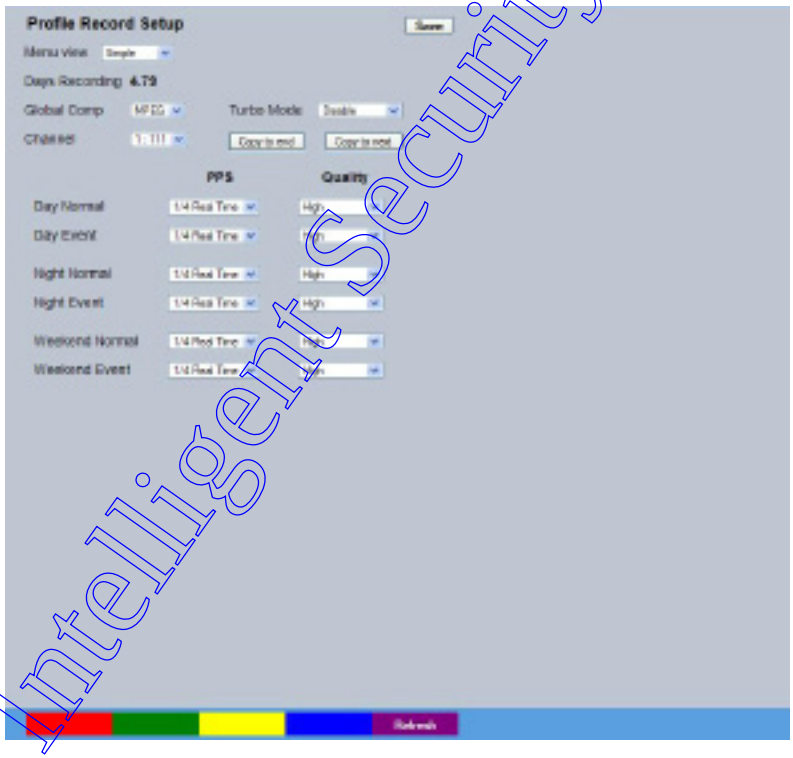
It is possible to set the unit recording configuration based on specific priorities. The **Profile Record** *feature allows different record rates, and quality settings to be used for unset, set and override modes for all cameras. This can ensure event images are recorded at high quality, whilst normal 'non event' images are recorded at reduced setting, decreasing storage requirements.*

What is Turbo mode?

Turbo mode allows video images from any analogue camera or 3rd Party IP recoded camera to be recorded and streamed at the maximum possible rate without the need to configure individual settings. Turbo mode must be set Globally and will result in MPEG record rates of 12.5pps@4CIF and 25pps@2CIF/CIF/QCIF.

Note: *When selected, there will be only ONE configurable Record Profile across ALL cameras. The unit then matches the live transmission rate to the configured record rate. This enables a 'doubling' of performance. Only the 'Low' and 'Medium' Live Transmission profiles are available for configuration (Network Settings->Live Transmissions). Low and Medium transmission settings are configurable to allow video streaming over low bandwith IP connections and are limited to CIF for this purpose.*

Simple Record



Intelligent Security & Fire Ltd

Dedicated Micros ©2011

Menu View	This option will allow advanced quality settings available to each of the conditions (Set, unset and Normal) to be configured, refer to page opposite.
Days Recording	Displays the record duration possible using the current configuration.
Global Comp	Select image compression format (MPEG or JPEG) for all camera inputs.
Turbo Mode	Select to activate the Turbo mode function (see 'What is Turbo mode?' for a description of Turbo mode and its benefits).

Note: *When Turbo mode is selected, there will be only ONE configurable Record Profile across ALL cameras. The unit then matches the live transmission rate to the configured record rate. This enables a 'doubling' of performance. Only the 'Low' and 'Medium' Live Transmission profiles are available for configuration (Network Settings->Live Transmissions). Low and Medium transmission settings are configurable to allow video streaming over low bandwith IP connections and are limited to CIF for this purpose.*

Channel	Enables selection of a specific camera for editing.
Copy To end	Select to copy the current profile record settings to all subsequent camera channels.
Copy To next	Select to copy the current profile record settings to the next camera channel.

Note: *The next two descriptions use the configurable profile name settings. If these names have been changed on the 'Schedule->Setup' page, these menu options will display the user configured names.*

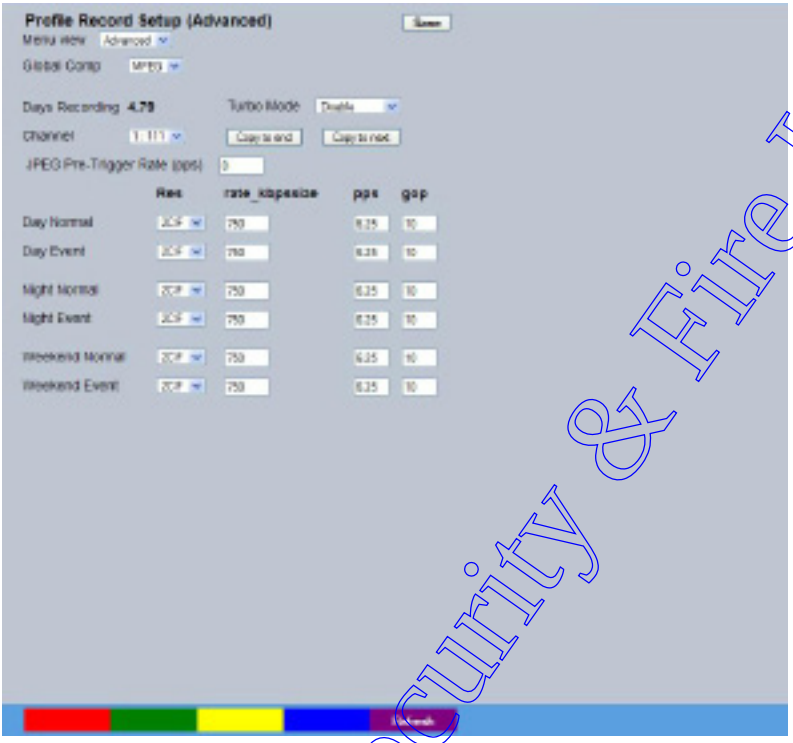
Day/Night/Weekend Normal	Shows the recording profile used by the camera if no Schedules are applied and the camera is operating under Normal (non Event) conditions, refer to Record Settings->Schedule for further details.
Day/Night/Weekend Event	Shows the recording quality that will be used by the camera during an Alarm or Event. Note that Set and Override settings will be used only when Schedules are applied, refer to Record Settings->Schedule for further details.

Note: *Day/Night/Weekend modes may have been renamed via Schedule->Setup.*

PPS	The accompanying dropdown list allows the number of frames captured per second to be set. The pictures per second (pps) option allows either 5, 3, 2, 1, 0.5, 0.25 or 0.1 pps to be recorded. Pictures can also be recorded at '1/2 Real Time' or '1/4 Real Time' speed. To disable record, choose the 'No Record' option. 'User Defined' is for future use.
Quality	The accompanying dropdown list allows the quality of recorded images to be set. Select from Maximum, High, Medium, Low or Very Low.

Intelligent Security Systems Ltd

Advanced Record



Menu View	Switch to the Simple Profile Record menu.
Global Comp	Select a Global i.e. all cameras compression format (MPEG or JPEG),

Note: *When Advanced Record settings have been changed, it is not possible access the Simple Record menu until the newly configured Advanced Record settings have been applied. To do this, open the Record menu and select the 'Save' option. It will then be possible to return*

Days Recording	Displays the record duration possible using the current configuration.
Turbo Mode	Select to activate the Turbo mode function (see 'What is Turbo mode?' for a description of Turbo mode and its benefits).

Note: *When Turbo mode is selected, there will be only ONE configurable Record Profile across ALL cameras. The unit then matches the live transmission rate to the configured record rate. This enables a 'doubling' of performance. Only the 'Low' and 'Medium' Live Transmission profiles are available for configuration (Network Settings->Live Transmissions). Low and Medium transmission settings are configurable to allow video streaming over low bandwith IP connections and are limited to CIF for this purpose.*

Channel	Enables selection of a specific camera for editing.
J-PEG Pre-Trigger Rate (pps)	Enabling the Pre-Trigger feature will buffer and store alarm recording prior to an event trigger (in JPEG format). The figure entered here is the maximum possible data (pps) that will be stored prior to an event trigger.
Copy To End	Select to copy the current profile record settings to all camera channels.

Independent Security & Fire Ltd

Copy To Next	Select to copy the current profile record settings to the next camera channel.
Day/Night/Weekend Normal	Shows the recording profile used by the camera if no Timed Schedules are applied and the camera is operating under Normal (non Event) conditions, *refer to 'Schedule' for further information.*
Day/Night/Weekend Event	Shows the recording quality that will be used by the camera during an Alarm or Event. Note that Set and Override schedules will be used only when Timed Schedules are applied. Refer to 'Schedule' for further information.

Note: *Day/Night/Weekend modes may have been renamed via Schedule->Setup.*

Res	Select image resolution format (QCIF, CIF, 2CIF).
Rate_kbps	If MPEG4 is selected, the figure entered here will be the bit rate allocated. A higher bit rate will provide better quality. MPEG bit rates can be entered within the range of 45-2500K bits/second.
Size	If JPEG is selected, the figure entered here will be the size of the JPEG transmitted (in Kbytes). JPEG file sizes can be configured within the range of 5-45Kbytes.
PPS	Select the number of pictures recorded per second.
GOP	If using MPEG4 recording, select the number of images recorded within a GOP (Group of Pictures). A GOP consists of an I-Frame (keyframe) and following P frames.

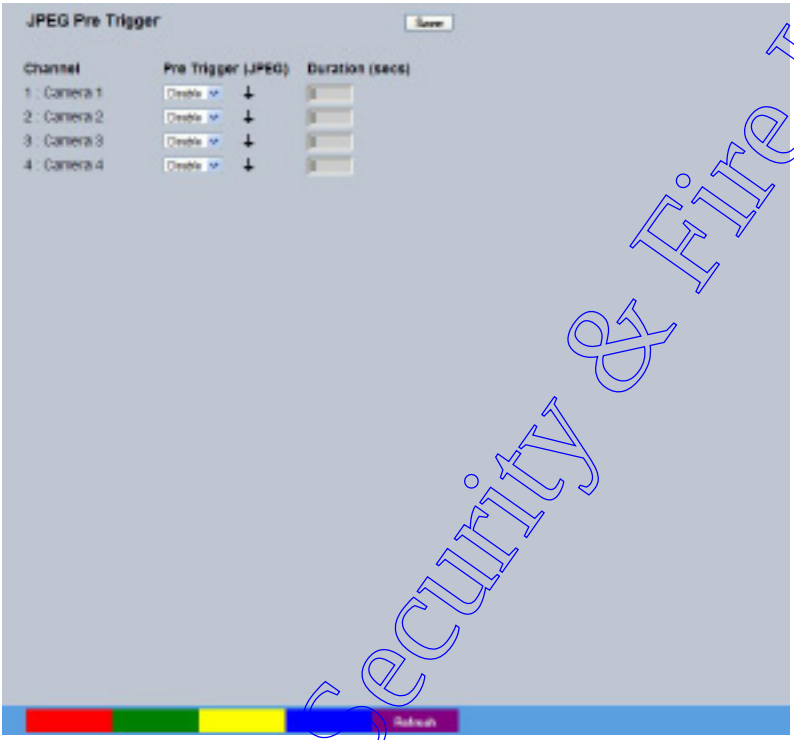
Note: *The GOP is also the rewind interval and stop interval for MPEG recording playback.*

Note: An MPEG I-frame is considerably larger than a P-frame. Therefore the lower the GOP ratio, the higher the disk space required to store recorded images.

Intelligent Security Systems Ltd

JPEG Pre Trigger

This menu enables configuration of the pre trigger feature (for cameras recording JPEG mode only). When enabled, the pre-trigger feature will buffer and store alarm recording prior to an event trigger.



Channel	Only those camera channels set to record in JPEG mode will be available for configuration.
Pre-Trigger (JPEG)	Enabling the Pre-Trigger feature will buffer and store alarm recording prior to an event trigger (in JPEG format). It will use the maximum available memory dependent on other cameras requirements of the buffer space. Select 'Enable' to activate.

Note: *It is recommended that the Pre-Alarm option in the 'Alarm Settings-Zone Input' menu be set to the same value as the Pre-Trigger setting. This will ensure successful playback of high quality Pre-Trigger images. High quality pre-trigger images will only playback properly if review (playback) starts prior to the pre-trigger initiation.*

Pre-Trigger Duration (secs)	The Pre-Trigger Duration is the maximum possible time that data will be stored prior to an event trigger.
Refresh (Purple)	Refreshes the information on the current page

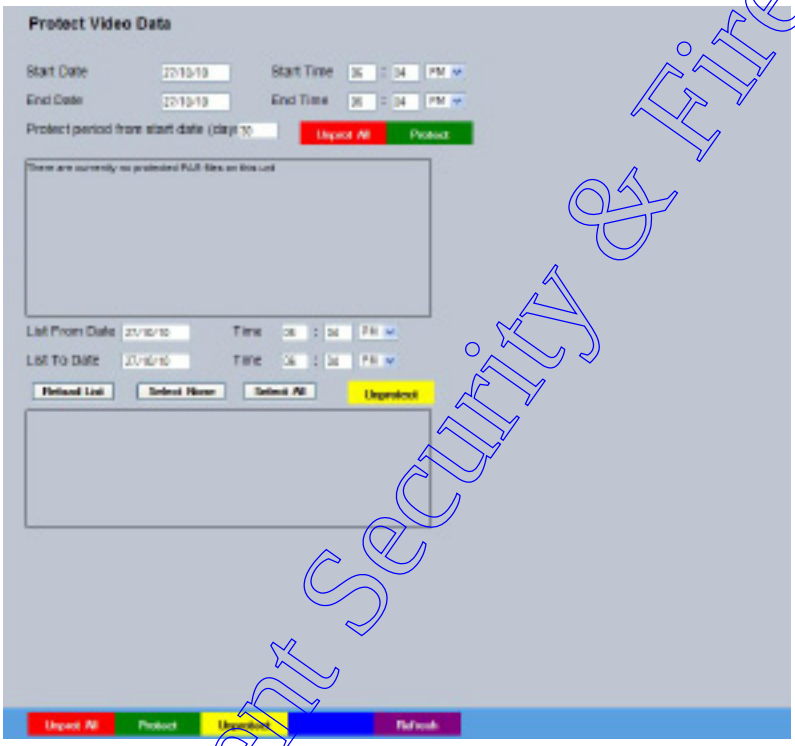
Intelligent Security & Fire Ltd

Dedicated Micros ©2011

Protect Video

This menu allows the unit to automatically protect and retain recorded data in the camera. Previously saved data can also be unprotected. Enter a start and end time and select 'Reload List'. All saved video files from the chosen time period will be shown in the upper textbox. These recorded 'PAR' files can then be selected and protected via their accompanying checkboxes and the Protect option. Selected video files can also be unprotected via the Unprotect option.

The lower textbox provides a status report detailing which video files have been protected/ unprotected.



Start Date	Enter a start date to protect video.
Start Time	Enter a start time to protect video.
End Date	Enter an end date to protect video.
End Time	Enter an end time to protect video.
Protect Length (days)	Enter the number of days that selected files will be protected for.
Protect	Select this option to protect recorded video for the selected time period(s).
Unprotect	Select this option to unprotect recorded video selected from the list.
Reload List	This will refresh the video list according to the selections made in the Start Time/Date and End Time/Date dialog boxes.
Select None	This de-selects all the available video files.
Select All	This selects all the available video files.

Intelligent Security & Fire Ltd

List From Date/Time	This dialog box allows a search to be made within the protected video list starting from a specific Time and Date.
List To Date/Time	This dialog box allows a search within the protected video list to conclude at a specific Time and Date.
Unprot all (Red)	Select to unprotect all recorded video from the list
Protect (Green)	Select to protect recorded video for the chosen time period
Unprotect (Yellow)	Select to unprotect recorded video for the chosen time period
Refresh (Purple)	Refreshes the information on the current page

Intelligent Security & Fire Ltd

Dedicated Micros ©2011

AoE

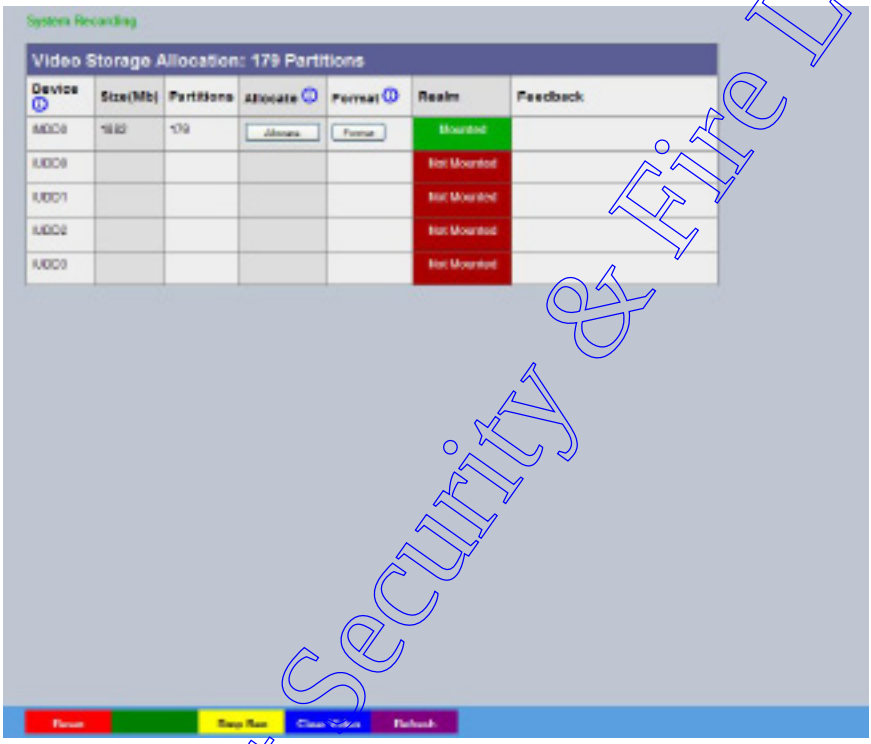
This menu allows configuration of the units ATA over Ethernet (AoE) function. AoE is a network protocol designed for simple high-performance access of storage devices over Ethernet networks. Importantly the external storage device must be located on the same network as the unit. AoE does not rely on network layers such as IP and TCP, making it non routable i.e. routers cannot be used to forward a packet across disparate networks. AoE packets can only travel within a single local Ethernet storage area network (adds a physical layer of security to the information). The stored video can only be accessed by plugging directly into an ethernet socket in the same LAN as the host. This means AoE cannot be accessed over the Internet or other IP networks, but makes AoE more lightweight (with less load on the host), easier to implement, provides a layer of inherent security, and offers higher performance.

Logical Devices	Connected AOE Devices - Any devices in this panel are being used by the unit to store data. They can be freed by clicking on the Release button.
Physical Devices	Available AOE Devices - Any devices in this panel are available on the network. They can be added to the storage capability of this unit by 'claiming' the storage. Unavailable storage is listed as Owned. Claimed storage capacity can be 'released' in the top panel.
Refresh (Purple)	Refreshes the current page.

Intelligent Security & Friend

Video Storage

The Video Storage Allocation table displays drives that are available for video recording. Entries with the prefix '/HDD0' indicate the units local hard drive (if installed), entries prefixed by '/udd0' are recordable media connected to the unit via USB sockets, an entry prefixed by '/mdd' is the installed SD card.



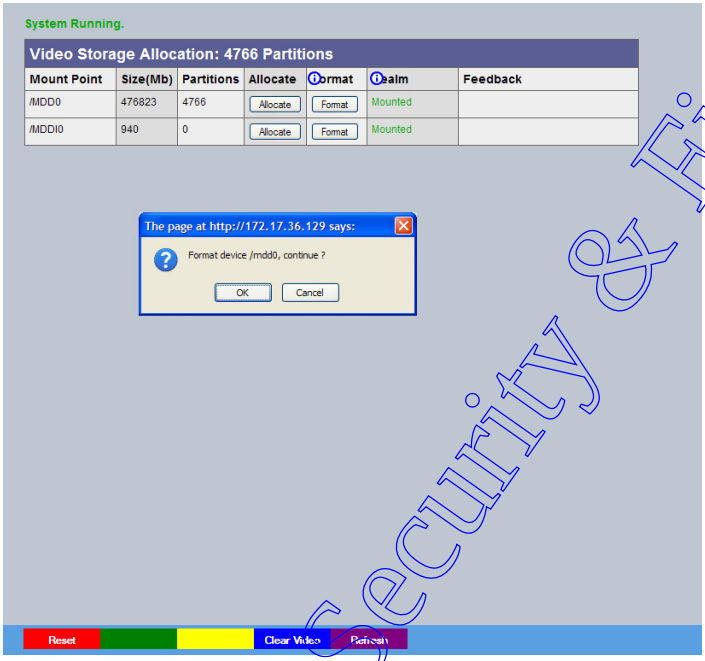
Device	Entries with the prefix '/HDD0' indicate the units local hard drive (if installed), entries prefixed by '/udd0' are recordable media connected to the unit via USB sockets, an entry prefixed by '/mdd' is the installed SD card.
Size	The device returns information when it is interrogated on connection to the camera, the size of the recordable media is amongst this data.
Partitions	The device returns information when it is interrogated on connection to the camera, the number of partitions is amongst this data.
Allocate	Formatted media can be allocated to the camera to allow it to be used for recording. DM recommends that media is formatted before allocation, even if if has been used previously for video storage.
Format	Prepares the media for video storage, *refer to 'To format additional Video Storage'*.
Realm	Displays the status of the associated media.
Feedback	Displays messages about the progress of formatting/allocation of the media.

Intelligent Security & Fire Ltd

Dedicated Micros ©2011

To format additional Video Storage

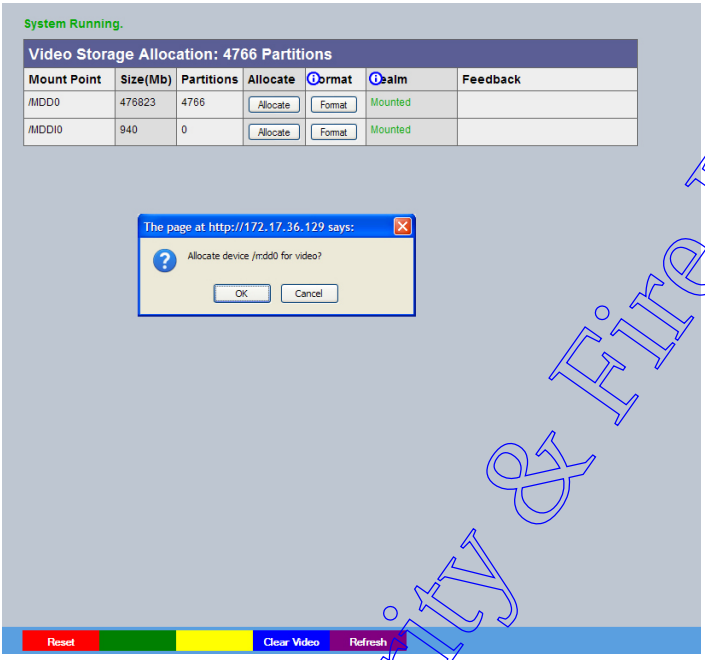
1. Plug a USB storage device into one of the available USB ports and click the purple Refresh button. The newly connected device will be displayed with a '/udd' prefix. The SD card (if installed) will also be displayed and can be allocated in the same way. USB devices will be prefixed udd, SD cards will be prefixed MDD.
2. The device may require formatting. DM recommends the device is formatted even if it was previously been used as video storage. Click on the 'Format' button adjacent to the device listing to prepare the device for recording.



3. Allocate the formatted and mounted storage for video storage by clicking on the 'Allocate' button. Allocation takes between a few seconds and a few minutes, depending on the size of the drive, and the Feedback column will display information about the allocation process. The unit will require a Reset once allocation is complete.

Note: *The unit application drive is protected, if it is allocated the unit will only remove the video folder. Formatting any other device will remove all data. In either case recording on the system is halted while formatting and, if already allocated, the formatted device will be de-allocated as a video storage device*

Intelligent Security & Fire Ltd



The system displays a confirmation box to ensure the correct device has been selected. Click OK to confirm, then reboot the system. Once the power has cycled, the system will build the required PAR files ready for recording to commence, progress will be displayed in the Feedback column.

Note: *There will be a pause before recording begins, dependant on the size of the USB device as video partitions are built.*

Intelligent Security & Fire Ltd

Schedule

The Schedule pages allow the Timer Functions that control recording to be configured.

The Setup page allows configuration of the schedule including naming the modes of operation and controlling when and how the unit changes between modes.

The Holiday & Weekend page allows the unit to be automatically switched to Override mode for individual days i.e. public holidays or during a weekend (or any defined period).

Intelligent Security & Fire Ltd

Schedule

This menu allows the Schedule function to be configured. This enables the unit to automatically be put into set/unset mode at specific times on specific days, or at any time under the control of a keyswitch. This can help reduce unnecessary alarm triggers by preventing alarm detection during office working hours.

When the unit is in Set or Unset mode, combine with different recording qualities and rates under normal and alarm conditions for a high degree of control in a range of situations.

Note: *If Keyswitch is Enabled, the Day Time and Night Time options will not be displayed. The additional Keyswitch options will instead be displayed.*

Mode/Title	Enables a name to be configured for Unset, Set and Override modes.
Current Mode	Shows the current timer mode according to the names entered in the Mode/Title text boxes.
Day Time	Enter the time (using the 24hr clock) when Unset mode will begin.
Night Time	Enter the time (using the 24hr clock) when Set mode will begin.

***With** Keyswitch Enabled*

Keyswitch	A Keyswitch can be used to switch the recording profile (Unset/ Set).

Note: *When the Keyswitch option is set to 'Enabled'. It is necessary to save (or exit and return to) the menu. The additional Keyswitch options will then be displayed.*

Enable-N/O	Select if the Keyswitch is to be normally open (UNSET). Then choose a contact to be used in a specific zone as the Keyswitch.

Intelligent Security & Fire Ltd

Dedicated Micros ©2011

Enable-N/C	Select if the Keyswitch is to be normally closed (SET). Then choose a contact to be used in a specific zone as the Keyswitch.

***With** Keyswitch Disabled*

Day	Specifies which Day of the week is being configured

NOTE: *The next two descriptions utilise the standard name settings for the profiles (SET, UNSET). If these names have been changed on the 'Schedule' page, these menu options will display the user configured names.*

Day Time	Specifies what time in format HH:MM the UNSET recording settings, configured on the Profile Recording page, will become operational
Night Time	Specifies what time in format HH:MM the SET recording settings, configured on the Profile Recording page, will become operational

Note: *The arrow button displayed next to each textbox allows settings to be replicated for those cameras listed below. This will only affect the adjacent option i.e. Mode arrow will replicate the Mode setting to all cameras below the clicked arrow.*

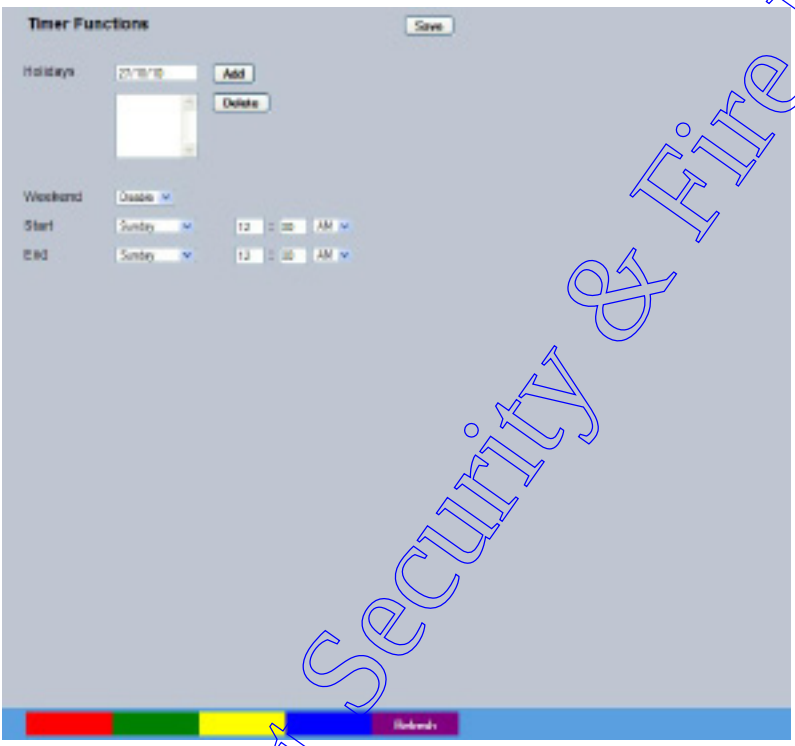
Note: *To disable one day, set both times to 00.00. To have the profile recording all 24 hours of a day, set both times to 24.00.*

Intelligent Security & Fire Ltd

Holiday & Weekend

This menu allows the unit to be automatically switched to Override mode for individual days i.e. public holidays or during a weekend (or any defined period).

IMPORTANT: *Holiday and Weekend settings cannot be entered when a Keyswitch has been enabled in the Record Settings->Schedule menu.*



Holidays	Enter a date and press the Add button. The date will be added to the Holiday list. To delete, highlight and select Delete.

Note: *Unset, Set and Override modes may be renamed via Record Settings->Schedule.*

Override	Select 'Enable' to activate the Override (weekend) function. Set mode will now be active for the dates outlined below.
Start	Select a Start day and time for Override (weekend) mode.
End	Select an End day and time for Override (weekend) mode.

Note: *Override mode will remain activate each week until deselected.*

Intelligent Security & Fire Ltd

Dedicated Micros ©2011

Alarm Settings

The Alarm Settings menus allow configuration of the unit's alarm functionality. Individual alarm inputs and alarm zones can be configured. Global relays can be activated and the Activity grid set up. Refer to the individual menus for further details.

The Inputs page allows configuration of alarm channels. Up to 4 alarm channels are available.

The Zone Input page enables the configuration of alarm zones.

The Zone Actions page enables actions such as Go to Preset to be allocated to alarm zones. Zones can also be associated with a specific camera. On receipt of an alarm, images from the associated (primary) camera will automatically be displayed in the Viewer menu.

The Activity Response page enables configuration of responses following an Activity Detection trigger.

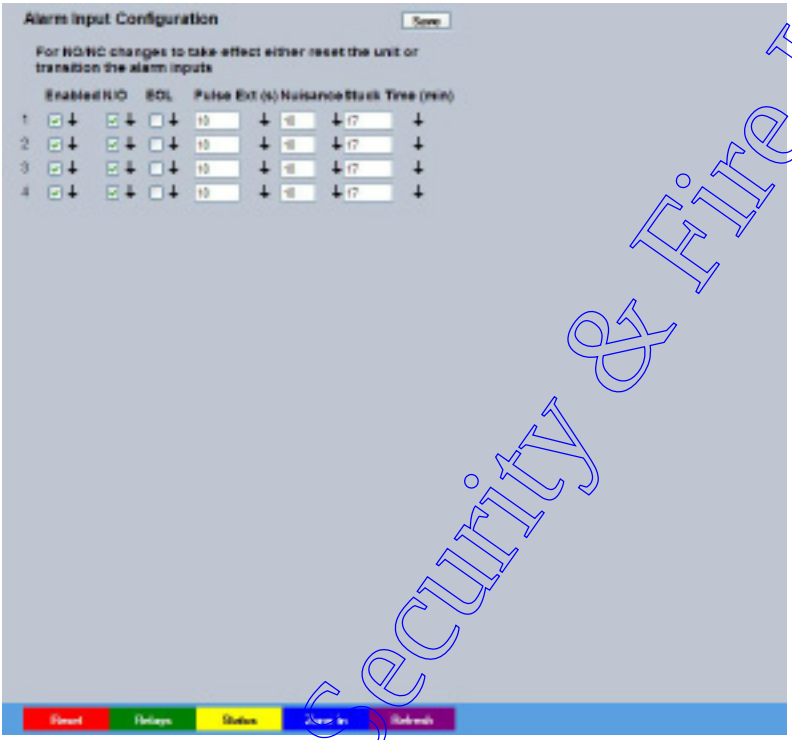
The Activity page allowed activation and configuration of the Activity feature on all video inputs. The Activity feature enables cameras to automatically detect any movement/changes within the video scene. This can trigger a number of operations such as FTP alarm notification or an increase in the recording rate.

The Global Actions page allows the four onboard relay connections and global relay settings to be configured.

Intelligent Security Systems Ltd

Alarm Input

This menu allows configuration of the alarm settings, refer to 'Installing the Unit' for hardware installation guidance.


Alarm Input Configuration
Save
For NO/NC changes to take effect either reset the unit or transition the alarm inputs
Enabled N/O
EOL
Pulse Ext (s)
Nuisance Stuck Time (min)

Number	This identifies which input is being configured. The unit supports 4 (four) on-board alarms.
Enabled	Each input must be enabled to function. If the input is not enabled and an alarm is received, the unit will not acknowledge the alarm.
N_O (Normally Open Contact)	N_O indicates the non-alarm state of the input. Tick the N_O checkbox to set the corresponding input to Normally Open. The alarm will then trigger when the input is closed (shorted). If left as Normally Closed (the default setting), the alarm will trigger when the input is opened.
Pulse Ext (s)	A pulse extension is used to prevent double triggers on a single alarm. The pulse extension time starts on an alarm trigger. If that contact is triggered again after the first alarm has finished but within the pulse extension, the second trigger will not restart the alarm, but will extend the current alarm duration. Enter the time in seconds for this extension.

Intelligent Security & Fire Ltd

Dedicated Micros ©2011

Nuisance	This is a repetitive detector value. When an alarm is received on the unit, it will store the alarm time and monitor the number of times the same detector is triggered within an hour period. If the detector is triggered the number of times entered here, the unit will de-activate this detector from triggering an alarm for an hour. The unit will continue to monitor the detector and check how many times it is triggered during this period. If it is again triggered more than the amount set in the nuisance counter, it will remain de-activated for another hour. This will continue until the trigger value falls below the nuisance count setting. To disable this feature, leave the setting as '0'.
Stuck Time (min)	If any of the alarms/detectors are active for a period longer than specified here, they will automatically be omitted. This time period is set in minutes.

Note: *The arrow button displayed next to each textbox allows settings to be replicated for those cameras listed below. This will only affect the adjacent option i.e. Enabled arrow will replicate the Enabled setting to cameras below the clicked arrow.*

Intelligent Security & Fire Ltd

Zone Input

This menu allows the configuration of established alarm zones. A single or multiple trigger can be used to generate an alarm. It is possible to allocate up to 32 alarm zones to carry out a combination of actions. Use these options in conjunction with the Zone Actions menu.

Entry time	This is the number of seconds allowed for the user to enter the zone and disable the alarms. If the alarm is not disabled within this period the alarm will be triggered.
Exit time	This is the number of seconds from the alarm being set within which the user must exit the set zone. If the user is still within the zone after this time period the alarm will be triggered.
Zone	A zone can be established to logically groups alarms and initiate actions when an alarm is activated, there are 32 configurable zones.
Title	This information is stored along with the relevant images in the database, ensure this has relevance to the alarm zone.
Pre-Alarm sec	This is the time period prior to the start of the alarm included with the alarm recording for archive. These images will also be protected from being overwritten.

Note: *It is recommended that the Pre-Alarm option be set to the same value as the Pre-Trigger setting in the "Profile Record" menu. This will ensure successful playback of high quality Pre-Trigger images. High quality pre-trigger images will only playback properly if review (playback) starts prior to the pre-trigger initiation.*

Intelligent Security & Fire Ltd

Alarm Protect sec	This is the minimum time period in seconds (from the start of the alarm) that is protected from being overwritten. This time will include the alarm trigger, the pulse extension and any post-alarm recording. It will not include pre-alarm images.
Zone Input Rule	This determines which input(s) will trigger the zone alarm:
Input	This sets an input or system function as the primary alarm trigger. Select from Alarms 1-32, Video Alarm 1-4, Preset 1-16, Disk Low, Disk Full, Panic, Archiving Slow, Archiving Fault, Virtual 1-16, and Keyword Channel 1-32 (which will trigger the Alarm if any of the 32 programmed keywords are detected on the selected channel).
Alarm 24Hr	This option can be enabled for alarms that do not require change at any time and are to remain as programmed i.e. Panic Alarm. When this is selected, the Set, Unset and Override options are disabled.
Entry Route Zone	This creates deferred alarms along a specified route while the entry time is active. This is in compliance with BS8418 (the British Standard for remote video reporting centres). Diverting from the entry route during the countdown will result in the alarm being triggered immediately. This allows staff entry without triggering an alarm prior to switching the system to Set mode.
Exit Route Zone	This creates deferred alarms along a specified route while the exit time is active. This is in compliance with BS8418 (the British Standard for remote video reporting centres). Diverting from the exit route during the countdown will result in the alarm being triggered immediately. This allows staff to exit without triggering an alarm.
Exit Terminator	This will trigger the exit timer if the system is set. A countdown timer will automatically start when the alarm is activated and ensure the alarm system is not activated by other specified alarm triggers for the Set time i.e. allowing a Guard to exit a building.
Entry Initiator	This will trigger the entry timer if the system is set. A countdown timer will automatically start when the 'primary' alarm trigger i.e. front door, is actioned. This ensures the alarm system is not activated by other specified alarm triggers for the set time
Enable in Unset	Each alarm can be configured to be active when the unit is in a specific operation mode. Enable this for the zone alarm to be active in Unset operation mode.

Note: *This label (Unset) may have been renamed in the Schedule -> Setup Page.*

Enable in Set	Each alarm can be configured to be active when the unit is in a specific operation mode. Enable this for the zone alarm to be active in Set operation mode.

Note: *This label (Set) may have been renamed in the Schedule -> Setup Page.*

Enable in Override	Each alarm can be configured to be active when the unit is in a specific operation mode. Enable this for the zone alarm to be active in Override operation mode.

Note: *This label (Override) may have been renamed in the Schedule -> Setup Page.*

Intelligent Security Ltd

Zone Actions

This menu allows actions to be allocated to individual alarm zones; Primary and Secondary cameras can be allocated to the zone and actions undertaken following alarm activation. This page should be configured in conjunction with the Zone Inputs menu.

Zone	Select a zone (alarm) to configure.
Alarm Colour	This displays the local alarm text in the selected colour and can be useful in prioritising alarms. Options available are Red, Green, Blue, Yellow, Cyan and Magenta.
Primary Camera	This setting gives the facility to assign a camera to the zone, which can be displayed on the Main Monitor when the alarm is triggered.
Create Database Entry	An alarm activation will be added to the database. The zone title will be used as part of the entry information.
Alarm Relay	Select to trigger an alarm relay following zone activation. Select the specific relay via the 'Relay' option.
Profile Change	Select to enable the unit to switch from Normal to Event recording following alarm zone activation.
Play Audio	It is possible to play associated audio upon zone alarm activation.
Alarm Reporting	This must be enabled to allow the unit to send an alarm notification to an external destination i.e. an RVRC reporting via NetVu ObserVer.
Archive	Select to ensure the unit automatically downloads alarm images via an FTP connection to an FTP server.

Intelligent Security & Fire Ltd

Dedicated Micros ©2011

Add Still Image	This will record a still image of the trigger along with the standard recording. This can then be sent on to an external destination.
Email Image	If this option is selected, a JPEG will be added to the reporting email (if Email Reporting is selected).
Protect alarm Images	Alarm images can automatically be protected from being overwritten.
Goto Preset	It is possible to action a telemetry camera to automatically be sent to a preset position when an alarm is triggered.
Email Reporting	The unit can send an email when an alarm is detected, *refer to 'Network->Email' for further information*.
Alarm Rate Change	Select to change to the alarm mode recording rate on zone action.
Activity Inhibit	Select to inhibit (ignore) the Activity detection feature, *refer to 'Alarm Settings->Activity Setup' for further information*.
System Set	Select to change to the 'Set' mode recording rate on zone action.
Enable Buzzer	Select to activate the unit's internal buzzer upon alarm receipt.
Relay	Select an onboard or external relay to automatically close on receipt of an alarm.
Relay Duration	Enter (in seconds) how long the relay is to remain closed.
Alarm Image Snapshot Delay	This figure allows a delay to be introduced before an alarm snapshot is taken. This is used when the alarm relates to a PTZ camera which has to travel to a preset position.
Play audio message	Following a Zone alarm trigger, a specific audio message can be played.

IMPORTANT: *Audio messages must be uploaded to the unit in mono 8k wav format only. The following naming convention must be used: messageXX.wav i.e. message00.wav, message01.wav etc. An FTP client should be used to place the wav files in the following folder: \mdd0\messages folder.*

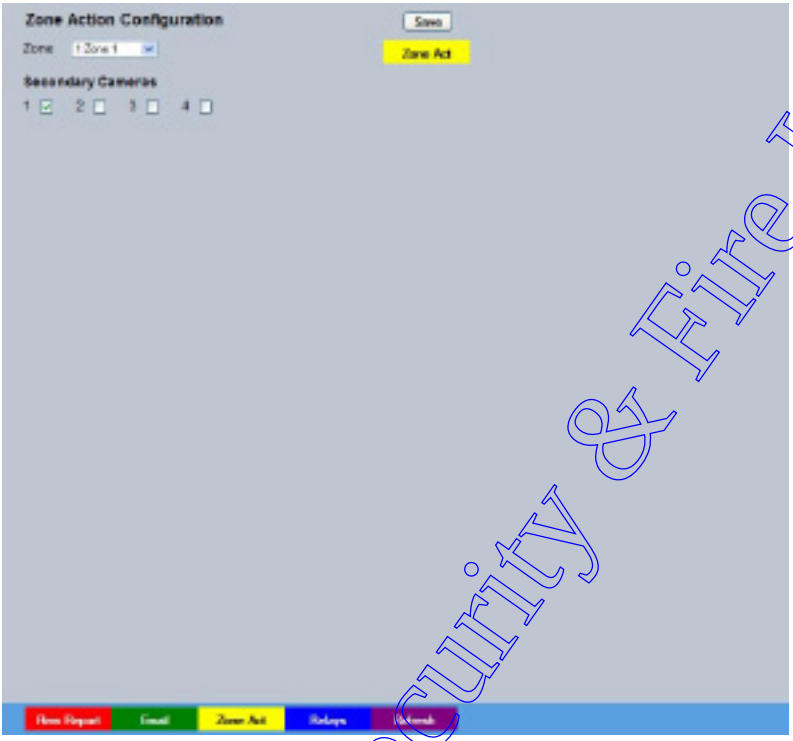
Switch Main Monitor	Select to display the alarm zone Primary camera on the Main Monitor.
System Override	Select to force the unit to utilise the Override (Weekend) settings (configured on the Schedule page) when the zone alarm is triggered. The system will remain in this mode until the Schedule switches.

Note: *This label may have been edited in Schedule->Setup*

Preset Camera	The preset camera is the camera which will be sent to a designated preset position upon alarm activation.
Preset	Enter the preset position number for the selected camera here, *refer to the individual camera documentation for more information on establishing camera preset positions*.
Cam Options (Yellow)	Select to open the Zone Action Camera Configuration page *(see below)*.

Intelligent Security Pty Ltd

Zone Actions Camera



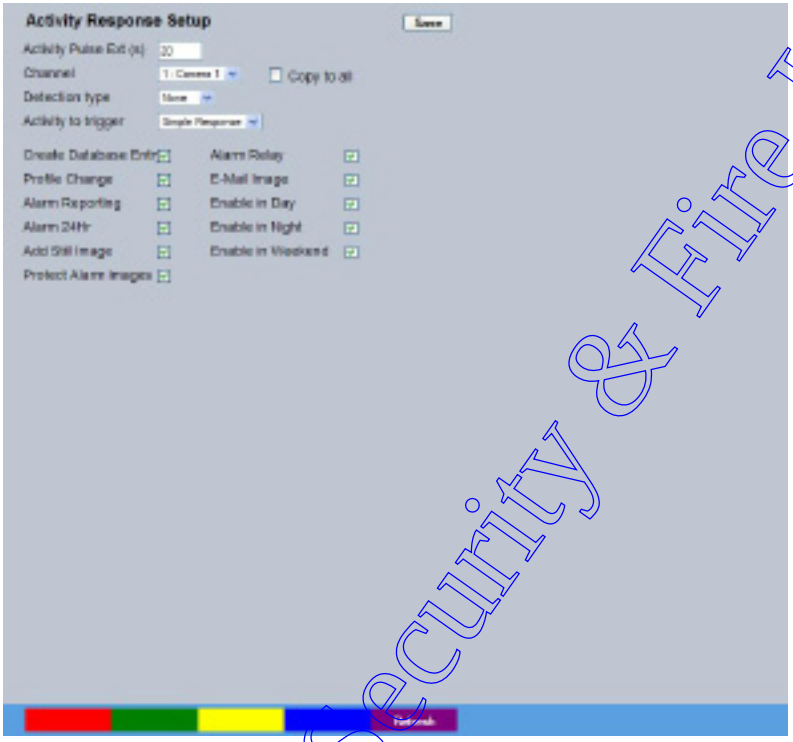
Zone	Select a zone (alarm) to configure.
Primary Camera	This allows a camera to be assigned as the primary camera associated with the Alarm Zone. The primary camera will be displayed when an alarm in this zone is triggered.
Secondary Cameras	This setting gives the facility to assign additional cameras to the zone. These cameras will become part of the alarm sequence shown in the Viewer menus when the alarm zone is triggered.
Zone Act (Yellow)	Select to open the Zone Action page.

Intelligent Security & Fire Ltd

Dedicated Micros ©2011

Activity Response Setup

This menu enables response configuration following activity trigger on a selected camera channel.



Activity Pulse Ext (s)	A pulse extension is used to prevent double triggers on a single alarm. The pulse extension time starts on an alarm trigger. If that contact is triggered again after the first alarm has finished but within the pulse extension, the second trigger will not generate a new alarm, but will extend the current alarm duration. Enter the time in seconds for this extension.
Channel	Select the camera input for configuration from the drop down list.
Copy To All	Select to copy the current Activity Response settings to all camera channels.
Detection Type	To configure the selected camera channel for Activity, select ‘Activity’. To assign no detection settings, select ‘None’.
Activity To Trigger	Following Activity activation, select ‘Simple Response’ to trigger specific chosen responses. Refer to ‘Activity Response Setup’ for more information. Select ‘Zone’ to apply the Zone Input rules a configured in the Zone Input menu, refer to ‘Zone Input’ for more information.
Create Database Entry	When selected, an alarm entry will be added to the Event database.
Profile Change	Select to enable the unit to switch from Normal to Event recording following alarm activation.

Intelligent Security & Fire Ltd

Alarm Reporting	This must be enabled for the unit to automatically connect on alarm.
Alarm 24Hr	This will ensure that Activity Detection is permanently enabled on this camera channel.
Add Still Image	This will record a still image of the trigger along with the standard recording. This can then be sent on to an external destination.
Protect Alarm Images	Select to automatically protect alarm images from being overwritten.
Alarm Relay	Select to trigger an alarm relay following zone activation. Select the specific relay via the 'Relay' option.
Email Image	If this option is selected, a JPEG will be added to the reporting email (if Email Reporting is selected).
Enable in Day	This will enable Activity Detection when the unit is in Day (Unset) operation mode.

Note: *This label (Day) may have been edited in Schedule->Setup.*

Enable in Night	This will enable Activity Detection when the unit is in Night (Set) operation mode.

Note: *This label (Night) may have been edited in Schedule->Setup.*

Enable in Weekend	This will enable Activity Detection when the unit is in Weekend (Override) operation mode.

Note: *This label (Weekend) may have been edited in Schedule->Setup.*

Intelligent Security & Fire Ltd

Activity

The unit supports Activity Detection on all video inputs. It enables cameras to automatically detect any movement/changes within the video scene; this can trigger a number of operations such as FTP, alarm notification and an increase in recording rate.
A still image of the selected camera will be shown in the Grid Editor screen. To establish an Activity zone, edit the cells displayed across the image.
This option should be used in conjunction with the Zone Inputs and Zone Actions menus.

Global Activity Mode	Three options are available for Activity activation (specifically in relation to a PTZ camera). Selecting 'Active while at Preset 1' will result in Activity mode functioning only when the camera is at preset position 1. Select 'Active while camera not in motion' for Activity mode to function only when the camera is still. Select 'Always Active' for Activity mode to be in constant operation.
Activity Channel	This is a drop down list of the video inputs on the unit, selecting an input will display images from the corresponding video source.
Activity Sensitivity	This option allows the sensitivity setting to be established for the activity grid being configured. There are five settings to choose from: Indoor High, Indoor Low, Outdoor High, Outdoor Low, Very Low.
Grid Editor	Use the Grid Editor by placing cells in areas of the camera view where movement will trigger an alarm. To enter cells navigate across the image.

Intelligent Security & Fire Ltd

Reload Img (Red)	This option will update the still image displayed in the Grid Editor.
Set All (Green)	This option will insert a default square of 16 x 16 cells across the displayed video image.
Clear All (Yellow)	This option will clear all entered cells.
Edit Mode	Leave as 'Normal'. Different Edit Mode functions will be added following future development.

Intelligent Security & Fire Ltd

Dedicated Micros ©2011

Global Actions

This menu allows configuration of the default relay actions supported on the unit. The unit supports two onboard relay connections and a global relay setting. This global relay can be triggered under specific conditions i.e. on receipt of any zone alarm or notification of Activity Detection.

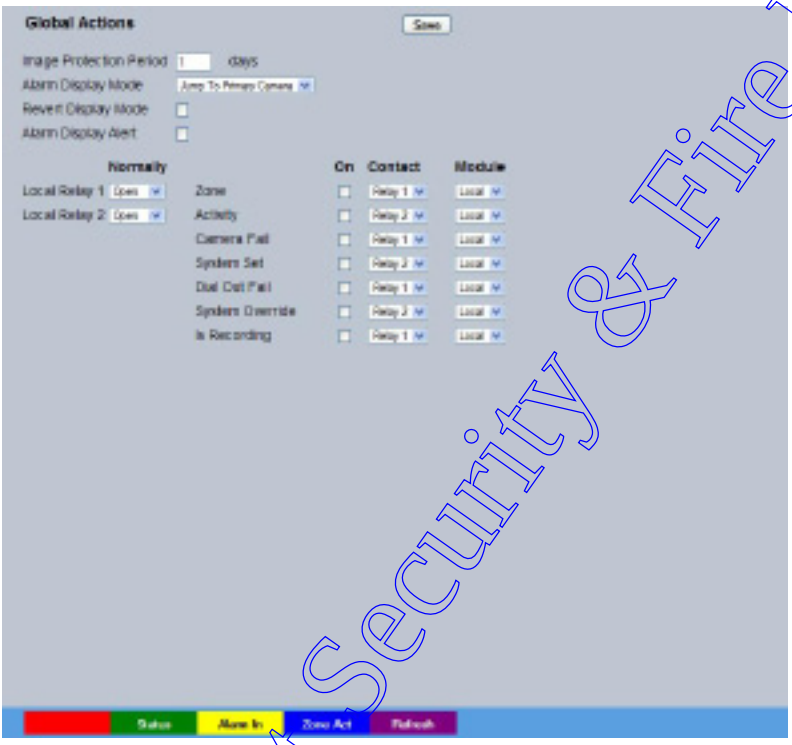


Image Protection Period	Select a time period (in days) that images associated with an alarm will be protected from deletion.
Alarm Display Mode	When a relay has been triggered, the primary camera associated with that relay can immediately be displayed on the local monitor. Select 'Jump To Primary Camera' from the drop down list to activate this function.
Revert Display Mode	Enable this setting to make the unit return to the view displayed before the alarm activation once the alarm has ended.
Alarm Display Alert	Enable this setting to display an alarm text alert in the colour specified in 'Alarm Colour' in the Zone Actions Menu.
Normally	Select whether the normal state of the relay contact should be Open or Closed.
On	Select to enable detection of the accompanying condition. Options available are; Activity, Camera Fail, System Set, Dial Out, System Override, Camera Masked and Is Recording,

Intelligent Security & Fire Ltd

Contact	Specifies which Relay will be triggered when the associated alarm is received.
Module	When connected, additional modules will be available i.e. 485 Bus module. These modules can then be activated following relay activation.

Intelligent Security & Fire Ltd

Dedicated Micros ©2011

Network Settings

The Network Settings menus allow configuration of the unit's network functionality. Key network settings can be established such as 'fixing' the unit's IP address and maximum transmission rate. E-mail, remote reporting on alarm and FTP download can also be configured. Refer to the individual menus for further details.

The Network Settings page allows configuration of the unit's network connections such as the name assigned to the unit and its IP address.

The Live Trans page enables JPEG and MPEG profiles to be created for transmitting images via a High, Medium or Low quality network connections to any viewing software or to another unit using this one as an IP source.

The Multicast page allows recordings from the unit's camera inputs to be forwarded to a port address; enabling multiple viewers to view live data using a suitable media player without the need to directly connect to the unit.

The Email page allows configuration of the Email feature. The unit can automatically transmit an email to an SMTP Server following an event i.e. on receipt of an alarm or a camera failure notice.

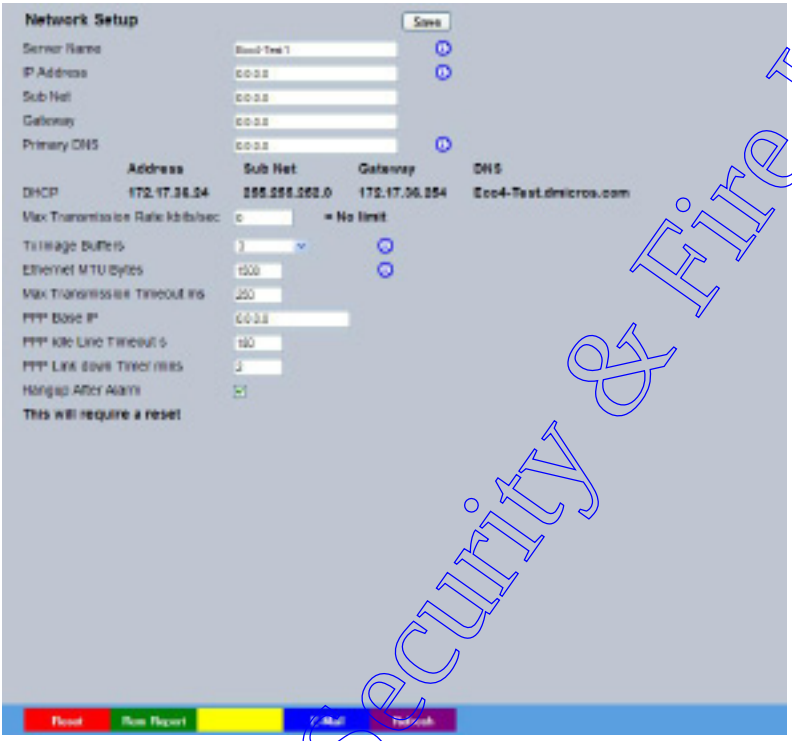
The Remote Reporting page allows a Remote Video Receiving Centre's (RVRC) configuration details to be entered. The RVRC will then be contacted following a selected event occurring i.e. reported alarm or camera failure.

The Firewall page allows the user to block access to the unit via specific network port(s).

Intelligent Security & Fire Ltd

Network

This menu allows additional network settings to be configured if required.



Server Name	This field can be edited to allocate a name to the unit. This would be used if accessing the unit via a Domain Name Server (DNS).
IP Address	This is the IP address allocated to the unit.
Sub Net	This is the subnet of the network were the unit is located.
Gateway	This is the IP address of the default gateway (router).
Primary DNS	This is the primary DNS server IP address for applications utilising domain names.
Max Transmission Rate	Shows the maximum transmission speed for the network type.
Tx Image Buffers	This is used in order to improve the picture delivery over Ethernet when using a slow connection i.e. 256Kbps. A buffer setting of 1,2 or 3 is available.
Ethernet MTU bytes	This is the maximum transmit unit for the Ethernet packet. The MTU is the largest physical packet size measured in bytes that the network can transmit. By default this figure is set to 1500bytes.
Mx Transmission Timeout ms	This is the time (in milliseconds) the unit will wait to re-send a packet if an acknowledgement is not received.
PPP Base IP	Base address for the PPP port
PPP Idle Line Timeout s	This is the time (in seconds) the unit will wait before disconnecting the PPP (Point to Point Protocol) link if data has not been transmitted or received.

Intelligent Security & Fire Ltd

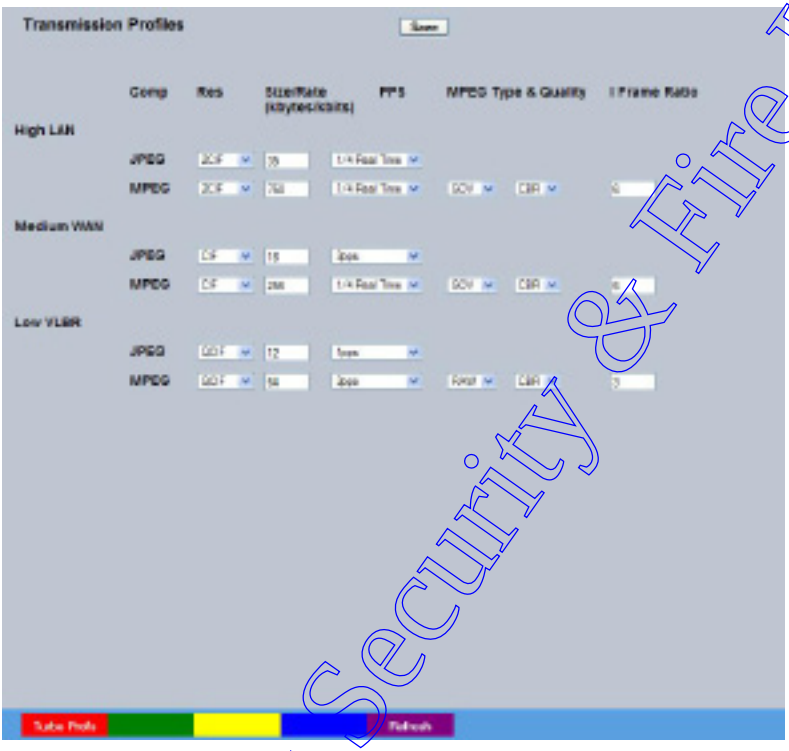
Dedicated Micros ©2011

PPP Link Down Timer mins	If for any reason the PPP connection is lost, this is the time (in minutes) before the unit will be forced to drop the PPP connection.
Hangup After Alarm	Select to close the network connection following transmission of alarm data.

Intelligent Security & Fire Ltd

Live Transmissions

The unit transmits live images using JPEG or MPEG formats.
The NetVu Connected remote viewing software will use the settings configured on this page as the defaults for JPEG & MPEG; High, Medium and Low settings.



Comp	Settings can be established for JPEG and MPEG compression.
Res	For MPEG and JPEG transmission, select image resolution settings (2CIF, CIF or QCIF).
Size_rate	For JPEG, the figure entered will be the size of the JPEG transmitted (in Kbytes). For MPEG4 the figure will be the bit rate allocated. A higher rate will provide better quality picture display. JPEG file sizes can be configured in the range of 5-45Kbytes and MPEG bit rates in the range of 45-2500Kbits/second.
PPS	This shows the number of pictures transmitted per second. For JPEG, the actual images transmitted will depend on the bandwith of the link, increasing the pictures sent per millisecond may introduce time lag if bandwith is not sufficient. On MPEG transmission, increasing the pictures sent will also reduce the quality of the images (as more images are transmitted for the defined bit rate).

Intelligent Security & Fire Ltd

Dedicated Micros ©2011

MPEG Type	Select whether transmitted MPEG4 images are sent as RAW data or in GOV (Group of Video) format. RAW mode transmits a single I frame and then a sequence of P frames (until a change in transmission is detected). GOV mode sends I and P frames in a standard format i.e. I to P frame ratio as set by the I Frame Ration option.
MPEG Quality	The Quality of the MPEG data transmission can be set from CBR (Constant Bit Rate) to High 32. A higher quality setting may result in a lower transfer speed.
I Frame Ratio	Select the ration of I Frames recorded between each P Frame.

Note: An MPEG I-frame is considerably larger than a P-frame. Therefore the higher the IP ratio, the higher the disk space required to store recorded images.

Intelligent Security & Fire Ltd

Multicast Setup

The Multicast page allows recordings from the unit's camera input to be forwarded to a port address; enabling multiple viewers to view live data using a suitable media player without the need to directly connect to the unit. In multi viewing scenarios, the demands on the unit are significantly reduced; improving overall performance.

This system has been validated using the 'Videolan VLC media player for MS Windows. The Videolan VLC media player can be downloaded free of charge from:

www.videolan.org/vlc/download-windows.html

Please refer to Appendix E for guidance on configuring the Videolan VLC media player.

Note: *Multicast can only used for live viewing, requests for stored images and events will still need to be made via the Viewer menu.*

Multicast Address — Assign a unique IP address. This address is not assigned to any 'physical' unit. The VLC program will use this address (when configured to do so) as its multicast group and access any broadcast images via the configured port address (see below).

If there are multiple units using multicast, each one must have a unique IP address.

Multicast port — Following configuration of the IP address, configure the port address. The address will default to 1234, .

Intelligent Security & Fire Ltd

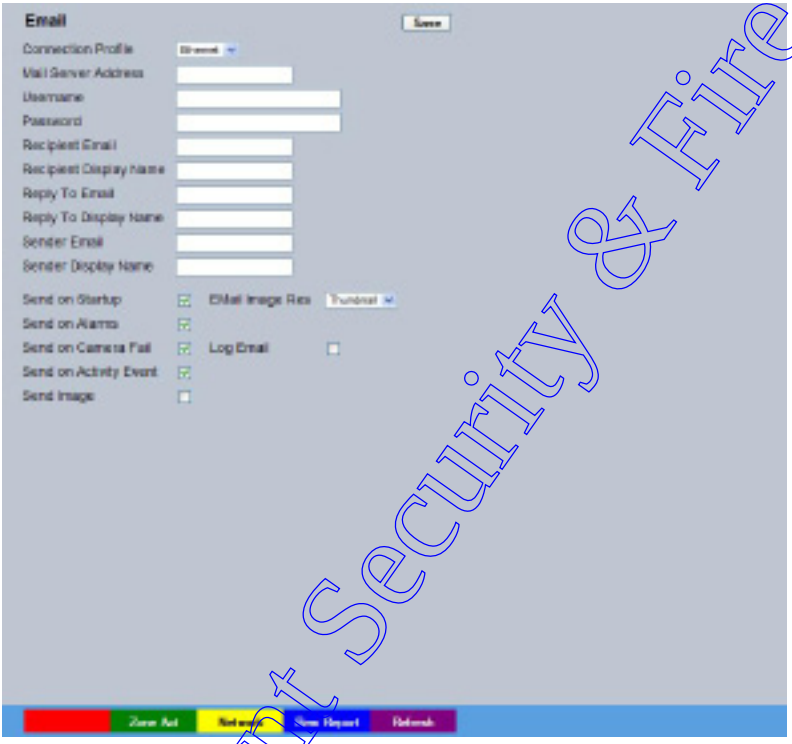
Multicast Method	Select the multicast forwarding method. Select from ‘SAP’ (to use session announcement protocol operation), ‘HTTP’ (to use cgi control operation) or ‘SAP+HTTP’ (both methods used simultaneously).
Enable	Tick this option to enable multicast.
TTL (Time to Live)	This option can be configured to limit which users can access the images. Enter one of the following numbers: 0 - restricts video to the same host 1 - restricts video to the same subnet 32 - restricts video to the same site 64 - restricts video to the same region 128 - restricts video to the same continent 255 - is unrestricted in scope

Intelligent Security & Fire Ltd

Email

The unit can automatically transmit an email to an SMTP Server under numerous conditions i.e. on start up, on receipt of an alarm, camera failure etc. This allows the unit to be installed in unmanned applications where a Remote Video Response Centre (or Manager etc.) would be notified by email if any of these conditions occur.

Note: *This menu will only be displayed if 'Email Reporting' is selected in the System Settings->Features->System menu.*



Connection Profile	It is possible for the email to be transmitted via the Ethernet network or dial up connection (PPP 'Point to Point Protocol'). This setting presumes that a modem has been connected or configured and the unit is connected to a LAN or WAN and allocated a valid IP address.
Mail Server Address	This is the IP address or URL of the SMTP Server that the email will be sent to. The SMTP server will then forward this to the intended recipient.
Username	Enter the login details for the email account used above.
Password	Enter the login details for the email account used above.
Recipient Email	This is the email address of the intended recipient.
Recipient Display Name	This is the addressee name that will be shown in the email name field.
Reply to Email	This field must be configured if the recipient is to reply to an email. The unit does not accept incoming emails therefore ensure this is a valid email address.

Intelligent Security & Fire Ltd

Dedicated Micros ©2011

Reply To Display Name	This is the 'reply to' name that will be shown in the email name field.
Sender Email	These optional fields indicate the source of the email notification. If the fields are left blank the unit will use the system name to create a sender name.
Display Name (Sender)	This is the sender name that will be shown in the email name field.
Send on Startup	Select to send email notification on startup.
Send on Alarms	Select to send email notification on alarm activation.
Send on Camera Fail	Select to send email notification on camera fail.
Send on Activity Event	Select to send email notification on activation of the Activity Detection feature.
Send Image	Select to send accompanying image from supporting primary camera.
Log Email	Select to log every email transaction that the unit issues.
Email Image Res	Select resolution settings for images sent as 'thumbnail' attachments. Choose from: Thumbnail, LO (low res), MED (medium res) and HI (high res).

Intelligent Security & Fire Ltd

Remote Reporting

This menu details the configuration requirements for the unit to report to a Remote Video Receiving Centre (RVRC) following alarm activation.

Note: *This menu will only be displayed if 'Remote Reporting' is selected in the System Settings->Features->System menu.*

Primary Hostname	This is the IP address or URL of the initial host that the unit will transmit an alarm message to.
Primary Dial Profile	It is possible for the alarm message to be transmitted via the Ethernet network or a dial up connection.
Secondary Hostname	If the unit is unable to contact the primary host, an alternative route can be identified via a secondary host. If there is only one alarm receiving IP address, you must enter the details in both the primary and secondary connection settings.
Secondary Dial Profile	It is possible to select a separate dial profile for the secondary host.
Public (NAT) Address	This is the public IP (or domain name) for a unit connected to the Internet via a NAT Router or Firewall. This field should be left blank if NAT is not used e.g. a private network.
Video Server Port	This field allows the RVRC to connect to the unit through a router that is using port forwarding e.g. if the video server does not appear on port 80 (HTTP), to the external network. Enter the port number used for forwarding here if required.

Intelligent Security & Fire Ltd

Dedicated Micros ©2011

Alarm Server ref. ID	This is the reference name/ID that will be presented to the RVRC viewing application. It should therefore have some significance to the Operator.
Remote Alarm Reporting	This must be enabled for the unit to automatically connect on alarm.
Remote Cam Fail Reporting	Enabling this option ensures the unit reports camera failure on any of the inputs to the RVRC.
Remote Startup Reporting	This will send an alarm report when the unit starts up. Any system resets will be identified.
ARC Ping Enabled	Should the modem/router at the Alarm Receiving Centre be dormant, the unit will 'Ping' the ARC prior to sending reporting data.
Alarm Responder Port	This specifies the network port number used for reporting to the alarm server. In normal circumstances this should be left at the default value (23).
Dial Retry Time (secs)	If the initial connection attempt fails, the unit will wait for the specified time period (in seconds) before attempting to re-connect.
Dial Count	This identifies the number of times the unit will attempt to connect after a failed attempt. A setting of '0' means no limit and the unit will continue to try and connect until successful.

Intelligent Security & Time Ltd

Firewall

This menu allows the user to block access to the unit via specific network port(s).

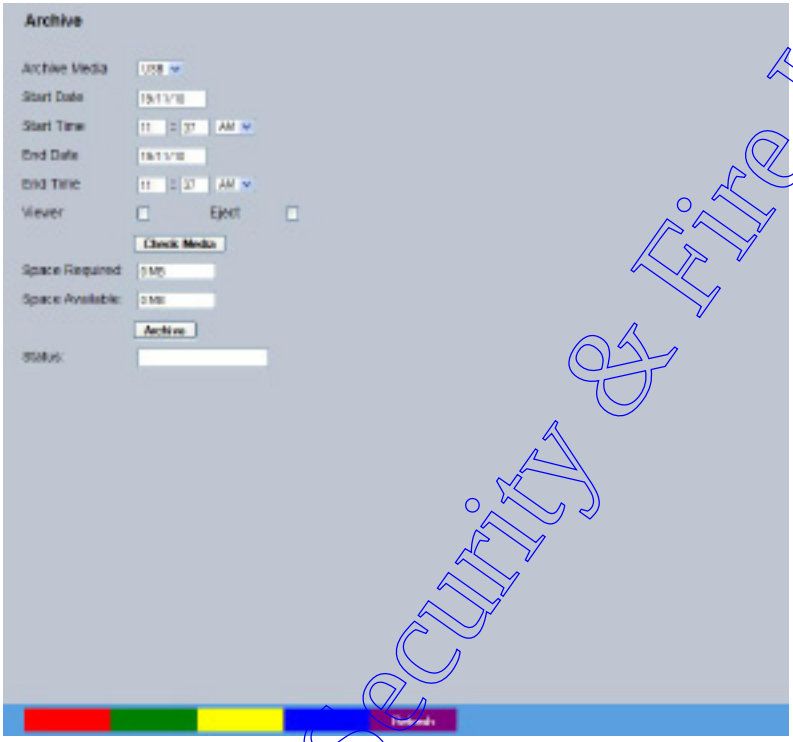
Enable Ping Response	Enabling this option will allow an external client to receive a response when attempting to 'ping' the unit. Disabling this option will make the unit less visible on the network.
Table Entry	Up to 32 Configuration settings may be entered.
Open TCP ports	This option can identify which system TCP ports are available. If a host tries to communicate with the unit using a TCP port that is not within the 'open' range (even with a valid IP address), access will not be granted to the unit. The enabled ports can be a range or single port address, if a single port is needed then enter the same port number in the to and from section.
Open UDP ports	This option can identify which system UDP ports are available. If a host tries to communicate with the unit using a UDP port that is not within the 'open' range (even with a valid IP address), access will not be granted to the unit. The enabled ports can be a range or single port address, if a single port is needed then enter the same port number in the to and from section.

Intelligent Security & Fire Ltd

Dedicated Micros ©2011

Archive

This menu allows Event database information to be downloaded to a connected USB media device.



Archive Media	Select to archive to a USB media device.
Start Date	Enter a start date for the event download.
Start Time	Enter a start time for the event download.
End Date	Enter an end date for the event download.
End Time	Enter an end time for the event download.
Viewer	When selected, the unit will add a Viewer program to the archive. It is recommended that this option be selected as it will ensure the downloaded video images can always be successfully viewed.
Eject	The media can be ejected when the operation is complete. An inserted USB stick will be made safe to remove.
Check Media button	Selecting this option will display the space required (in megabytes) for the chosen event period to be fully downloaded. The space currently available on the USB device is also shown.
Space Required	Space required for archive download.
Space Available	Space currently available on the USB device.
Archive (button)	Select this button to begin the Archive process.
Status	During Archiving, status messages will be displayed detailing the archive process.

Intelligent Security & Fire Ltd

Diagnostics

The Diagnostics menus gives engineers the ability to quickly and accurately diagnose any problems with the unit. This menu will normally only be used on a Technical Support call.

The Debug Parser menus allow detailed analysis of the debug output from the camera and maybe used to assist with fault finding. The debug can be filtered in order to isolate and highlight events that are of interest.

Intelligent Security & Fire Ltd

Dedicated Micros ©2011

Debug Parser

This menu allow detailed analysis of the debug output from the camera and maybe used to assist with fault finding. The debug can be filtered in order to isolate and highlight events that are of interest.

View	Defines whether the debug settings on the debug output will be displayed.
Filter	Specifies which of the Debug Filters is being configured.
Search text	Specifies the text to be searched for in the Debug stream.
Text colour	Allows configuration of the parser window font colour.
Background colour	Allows configuration of the parser window background.
Font family	Allows the display font family to be specified.
Font size	Allows the display font size to be specified.
Font weight	Allows the display font weight to be specified.

Intelligent Security & Fire Ltd

Viewer Menus

The Viewer menus allows connected cameras to be viewed, controlled (were applicable) and recorded images to be searched for, viewed and archived. The Viewer menus can be navigated via the front panel softkeys in conjunction with the USB mouse or the optional IR Remote Control or USB keyboard. They can also be viewed and accessed remotely via the webpages and the 'Viewer' menu option.

Operating the Viewer

Navigation is via a colour coded softkey system. The coloured menu provides an intuitive approach to operator and installer use. The coloured softkeys on the front of the unit correspond to the menu options displayed on screen.

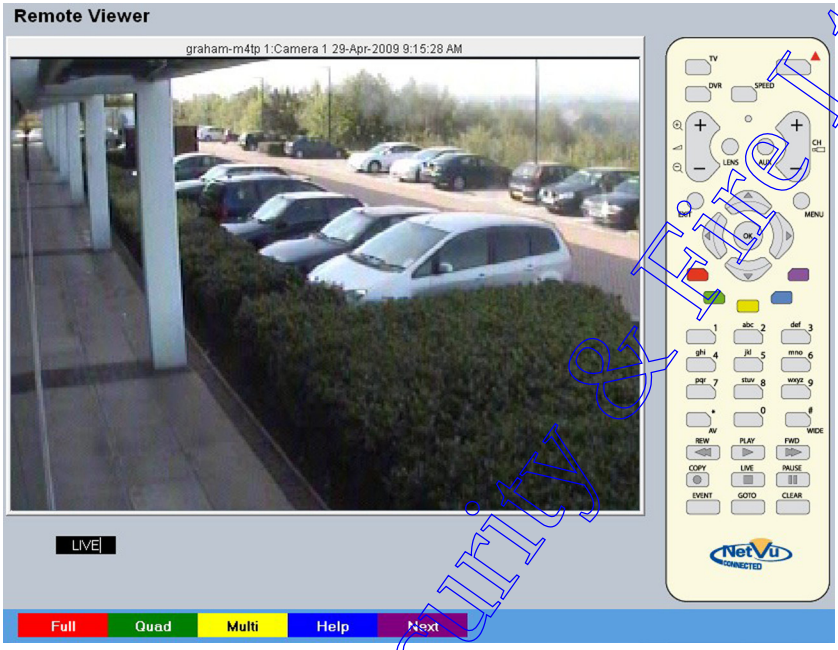
The function of the keys will change according to whether the unit is in Live or Playback mode.

Overleaf are described the available Viewer menu pages. To display the colour coded menu options on a local monitor, click the mouse button on any point on any menu page.

Intelligent Security & Fire Ltd

View Control

The View Control page allows connected video inputs to be displayed full screen or in Quad/Multi way display format. The Help Video page can also be accessed.



Red	Full	Show currently selected camera full screen.
Green	Quad	Displays four images on-screen, putting the currently selected camera in the top left segment of the four, and will increment all cameras by one if pressed again i.e. if cam 1 is shown top left, cam 2 top right etc. then the views will increment to cam 2 top left, cam 3 top right etc.

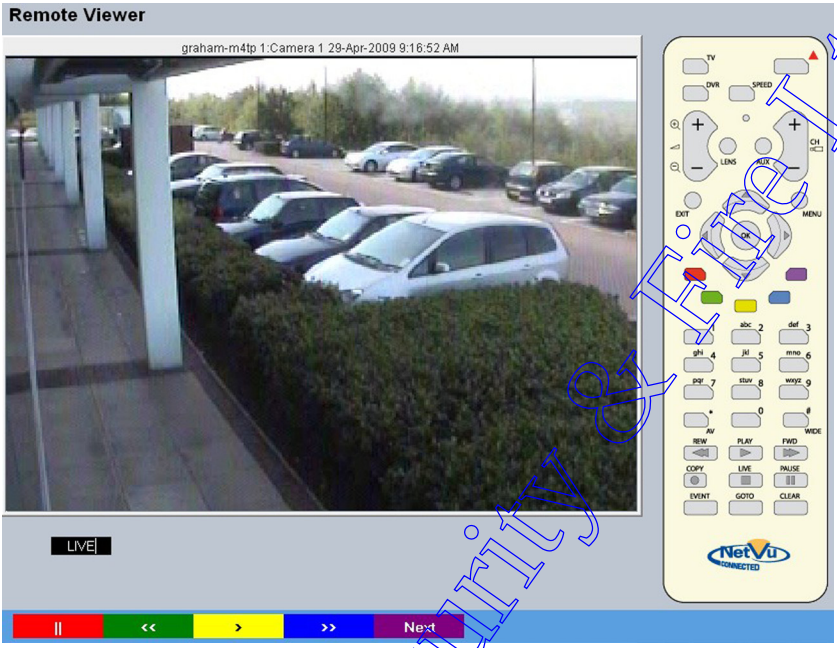
Note: *When a camera button is pressed to select a new camera, the new selection will be displayed in the top left hand corner of the display. The next three connected cameras will be displayed in the following three positions.*

Blue	Help	Select to display the Video Help menu.
Purple	Next	Opens the next page of the Viewer menu.

Intelligent Security & Fire Ltd

Video Control

The Video Control page offers video playback functions i.e. play, pause, rewind and fast forward

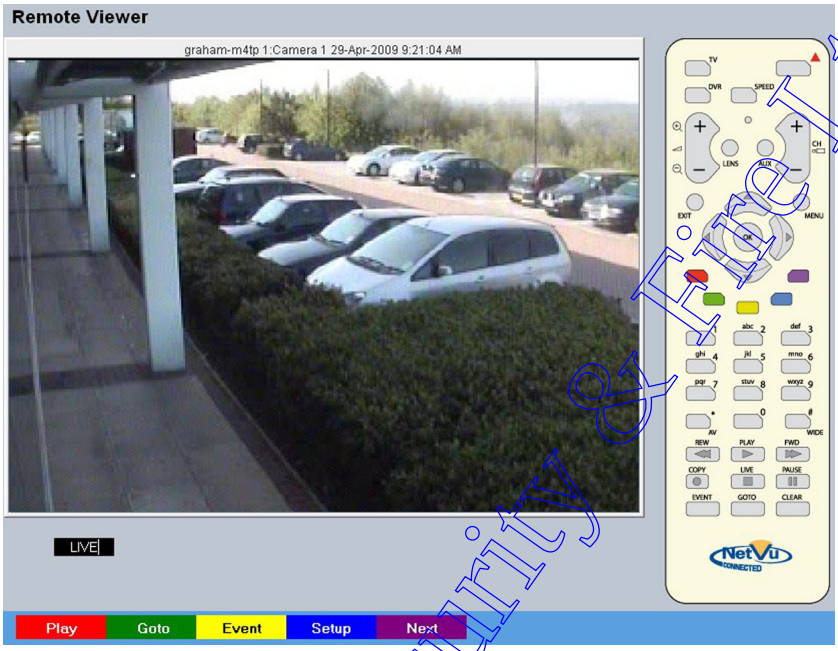


Red	II	Freezes current video display.
Green	<<	Rewinds current video.
Yellow	>	Plays from current position.
Blue	>>	Fast forwards video up to current recording position.
Purple	Next	Opens the next page of the Viewer menu.

Intelligent Security & Fire Ltd

Selection Page

The Selection page allows access to various image and event playback functions.



Red	Play	Switches the selected camera(s) shown onscreen into Play mode.
Green	Goto	Opens the GoTo menu, refer to '*GoTo Option*'.
Yellow	Event	Displays the Events menu.
Blue	Menu/Setup*	Opens the Configuration menu pages.

IMPORTANT: *Selecting this option will exit the Viewer menus. This will be logged in the User Activity Log as the current user terminating the session, refer to 'Appendix C' for further information regarding the User Activity Logging.*

Purple	Next	Opens the next page of the Viewer menu.

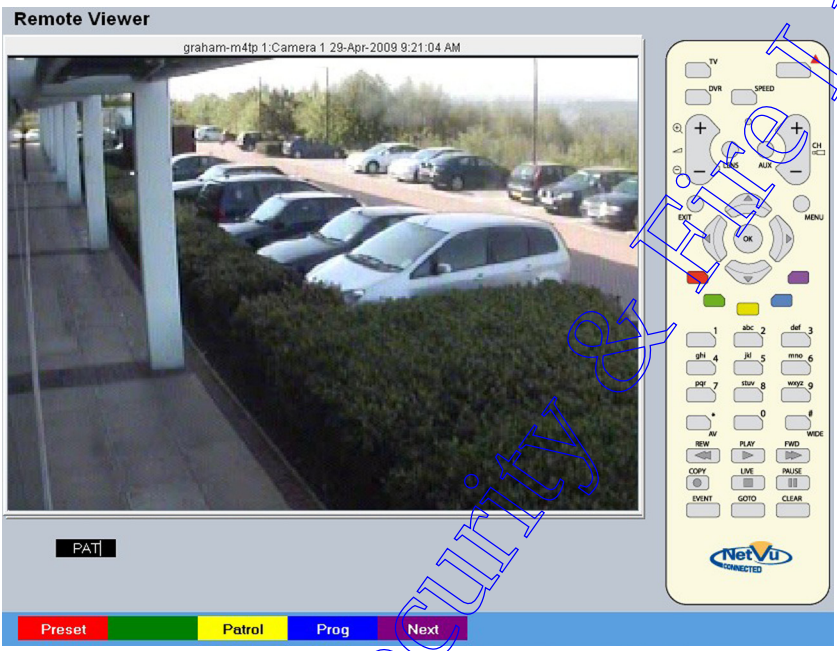
* *Menu will be displayed in the local viewer, Setup will be displayed in the remote viewer.*

Intelligent Security & Fire Ltd

PTZ Program Option

The Program page allows preset settings for PTZ cameras to be established and an 'Origin' base position established for a camera.

Note: *This page will only be available for PTZ cameras.*

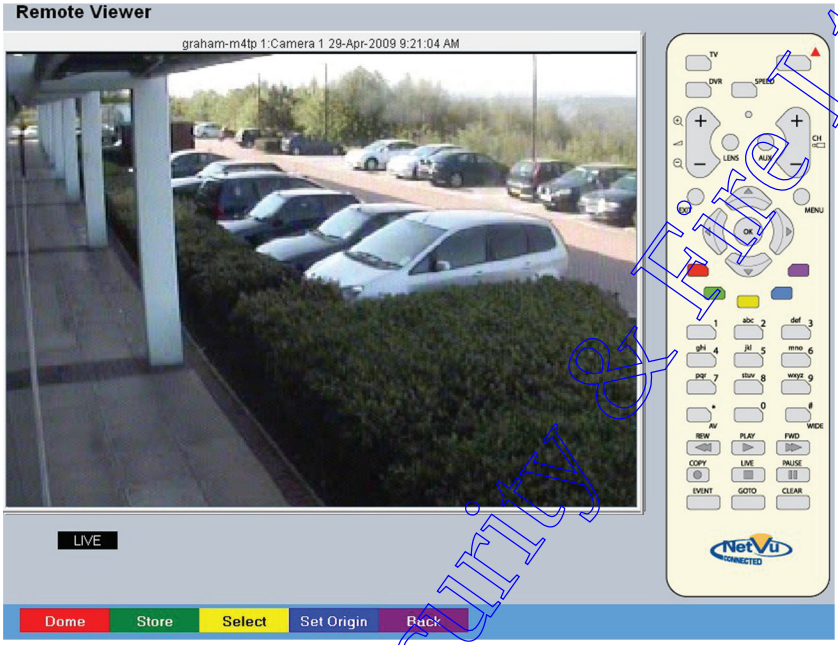


Red	Preset	If Preset positions have been established for the PTZ camera, select the Preset option and enter a preset number. Refer to the 'Presets' menu page for further details on establishing preset positions.
Yellow	Patrol	If Patrols have been established for the camera, select the Patrol option and enter a number. Refer to the 'Patrols' menu page for further details on establishing Patrols.
Blue	Prog	Opens the 'Dome Menu Option' page.
Purple	Next	Opens the next page of the Viewer menu.

Intelligent Security & File Ltd

Program Page

The Program Menu page allows the PTZ configuration on the currently selected telemetry camera to be accessed and configured.



Red	Dome	Select to display the Dome Menu page.
Green	Store	Use to save the current view as a Preset for this camera. Press this button then a preset position. To re-send the camera to this position, select the camera, then press Next -> Preset -> (preset number).

Note: *When entering a new preset, any previous preset assigned to that number (for the same camera) will be overwritten.*

Yellow	Select	This option will send the camera to the stored 'Preset1' position.
Blue	Set Origin	The Origin option allows a base position to be established for the Oracle dome camera. The camera will register this position as zero degrees. Any command that sends the camera to a coordinate will use this origin as its starting point..

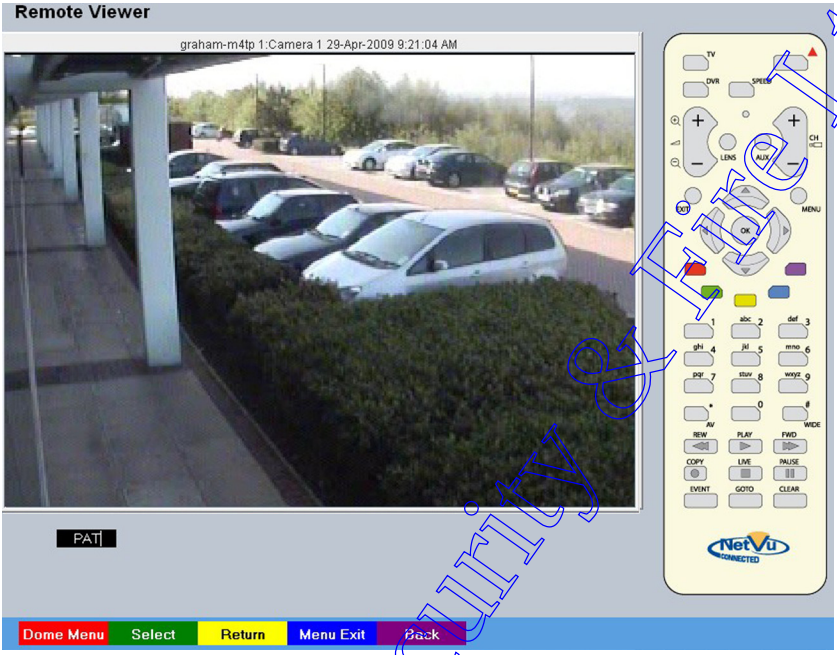
Note: *This option is only available for Oracle dome cameras.*

Purple	Back	Return to the 'PTZ Program Option' page.

Intelligent Security & Fire Ltd

Dome Menu Option

The Dome Menu page allows camera specific menus imbedded on the currently viewed Telemetry camera to be accessed and configured.

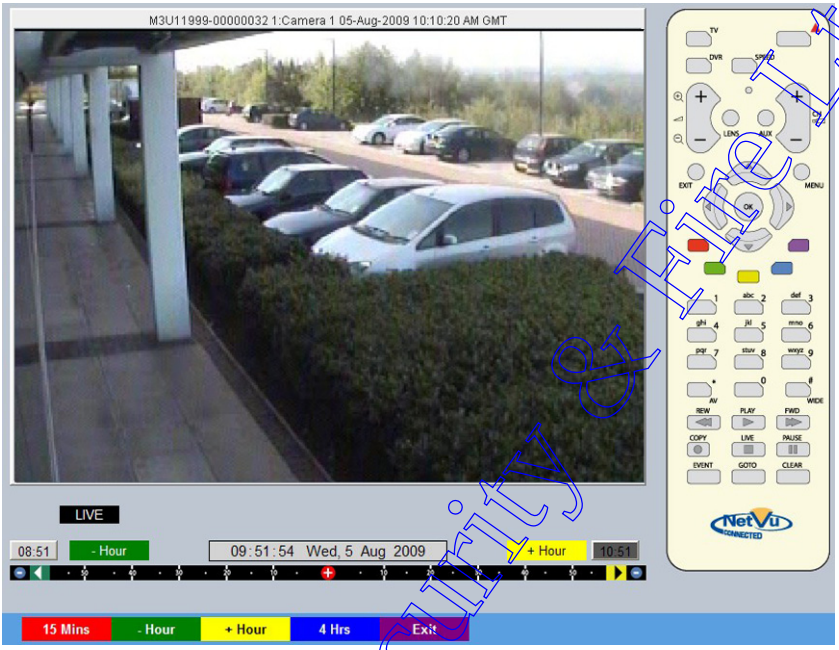


Red	Dome Menu	Select to view camera specific sub-menus embedded on the Telemetry camera (if applicable). The camera specific menus will be overlaid across the screen.
Green	Select	This option enables sub-menu content selection (dependent on the protocol selected). Please refer to the specific camera documentation for further guidance.
Yellow	Return	This option enabes sub-menus to be exited (dependent on the protocol selected). Please refer to the specific camera documentation for further guidance.
Blue	Menu Exit	This option will fully exit any embedded camera sub-menus currently being viewed.
Purple	Back	Return to the previous page of the Viewer menu.

Intelligent Security & Fire Ltd

Timeline Navigation

The Timeline Navigation page and the accompanying Video Timeline feature allows quick and easy investigation of recorded video data. The Goto button opens the initial Timeline Navigation page.



Softkeys

The coloured softkey options will change depending on the scale used to review the recorded images. In the above example:

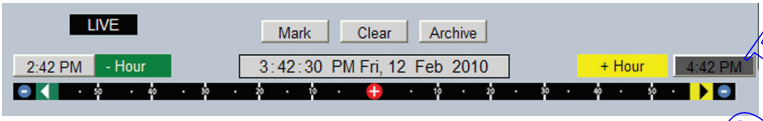
- Selecting the 15 Mins (Red) button will change the softkey options to 15 minute segments i.e. the user can progress 15 mins from/prior the current playback time.
- Selecting the -Hour button (Green) will progress the video to a point exactly one hour prior to the time shown in the date/time display.
- Selecting the +Hour button (Yellow) will progress the video to a point exactly one hour in advance of the ime shown in the date/time display.
- Selecting the 4Hrs (Blue) button will change the softkey options to four hour segments i.e. the user can progress four hours from/prior the current playback time.
- Selecting the Exit (Purple) button will always exit the Timeline Navigation menu.

Note: *Depending on the scale used to review the video i.e. Seconds, Minutes, Hours, or Days; the above softkey options will differ, however the same intuitive principles remain.*

Intelligent Security & Fire Ltd

Video Timeline

The Video Timeline allows intuitive, rapid navigation within recorded video. To aid navigation, the timeline can be set to display periods ranging from 15 seconds to four weeks. The timeline can be clicked anywhere in the scale to instantly play recorded images from that point.



Date/Time Display (Grey) — Shows the currently selected date/time.

Note: *The Date/Time Display shows the last time selected via the timeline. During playback, the Date/Time Display remains static while the 'running' time is shown in the bottom left corner of the playback image.*

Timeline

The timeline allows navigation from the time and date currently shown in the Date/Time Display window. The scale changes to correspond to the time period chosen for investigation i.e. if a scale of one hour is selected it will be possible to move up to one hour prior, or one hour in advance of the displayed time (unless that selected time has not been recorded yet). For example, with a scale of one hour, click '10' on the left side of the timeline to play video from 10 minutes prior to the Date/Time Display. To advance in time, click on the right side of the timeline.

Time Scale Options

- 15 seconds
- 1 minute
- 15 minutes
- 1 hour
- 4 hours
- 1 day
- 1 week
- 4 week

Intelligent Security Systems Ltd

Change Scale

Utilise the buttons shown below to change the scale.

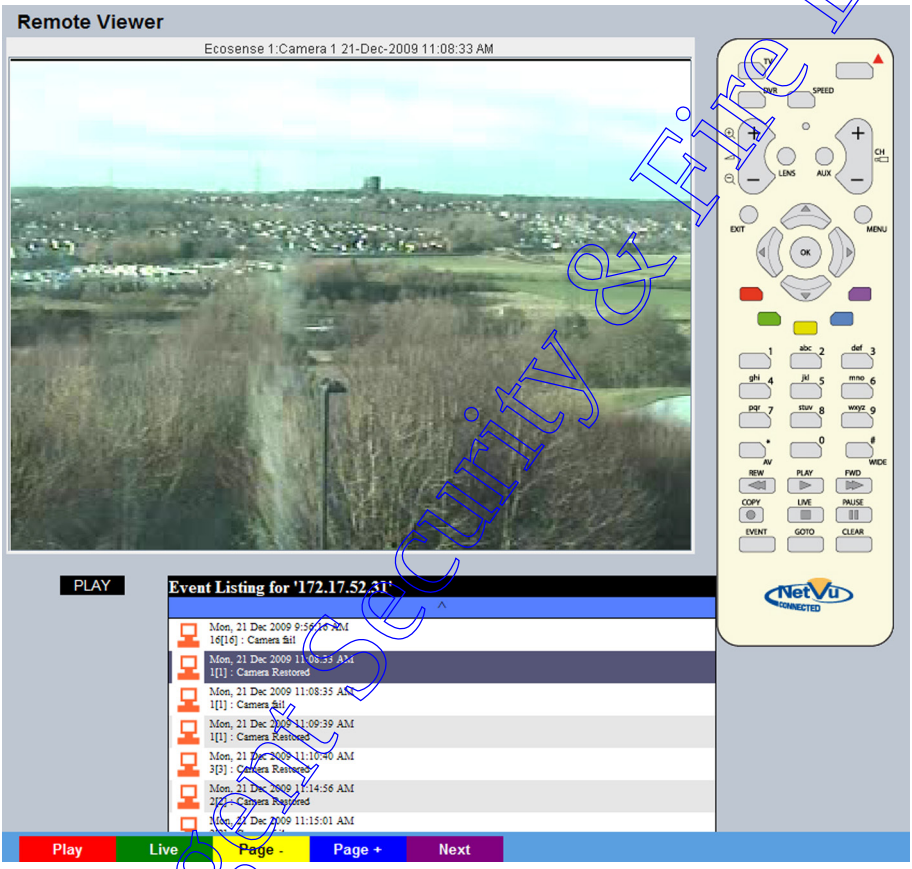
Note: *The coloured softkey buttons can also be used to alter the scale, refer to "Softkey Guidance" for further details).*

Decrease Scale button (Red)		Decreases the scale of the displayed timeline by one step i.e. if the scale is currently one hour, selecting this button will reduce it to 15 minutes, selecting it again will reduce it to one minute etc.
Increase Scale button (Blue)		Increases the scale of the timeline by one step i.e. if the scale is currently one hour, selecting this button will increase it to four hours, selecting it again will increase it to one day etc.
Left Navigation Arrow (Green)		Selecting the left navigation arrow will play recorded images from the maximum prior time available via the current timeline i.e. if a one hour time scale is displayed, selecting the Left Navigation Arrow will play video from one hour prior. This can also be selected via the Green softkey button.
Right Navigation Arrow (Yellow)		Selecting the right navigation arrow will play recorded images from the maximum future time available via the current timeline i.e. if a one hour time scale is displayed, selecting the Right Navigation Arrow will play video from one hour in advance. This can also be selected via the Yellow softkey button.

Intelligent Security Systems Ltd

Event List

Alarms and activity detection, plus system Events i.e. camera fails, are tagged and stored in the Event List. Each Event is labelled with an event type (alarm, activity or system) and its time and date. To view any additional pages of Event data, use the Yellow/Blue Softkeys. If viewing locally, use the Up/Down Directional buttons to select a specific Event, press the OK button to display the full list. When viewing remotely, selecting any Event with the mouse will display the full Event list. If viewing remotely, highlight a chosen event with the mouse to playback.

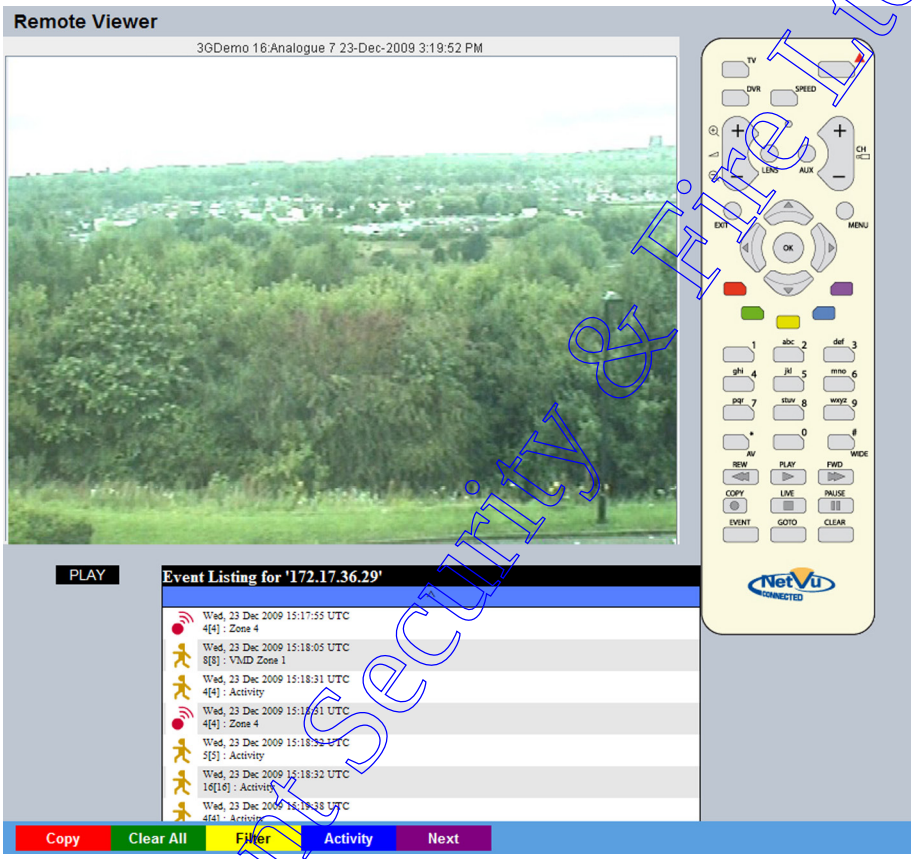


Red	Play	Select to playback the highlighted event.
Green	Live	Select to view live images from the currently selected camera.
Yellow	Page -	Select to display the previous page of Event data.
Blue	Page +	Select to display the next page of Event data.
Purple	Next	Select to open the Event Copy and Search menu.

Intelligent Security & Fire Ltd

Event Copy and Search Menu

The Event Copy and Search menu allows events to be sent to the Copy menu via the Copy Option. All events currently held within the 'Copy' menu can be deleted via the 'Clear All' option. The 'Filter option' allows access to the 'Filter Search' menu.



Red	Copy	Select to add the currently highlighted event to the Copy menu.
Green	Clear All	Select to clear ALL events from the copy menu.

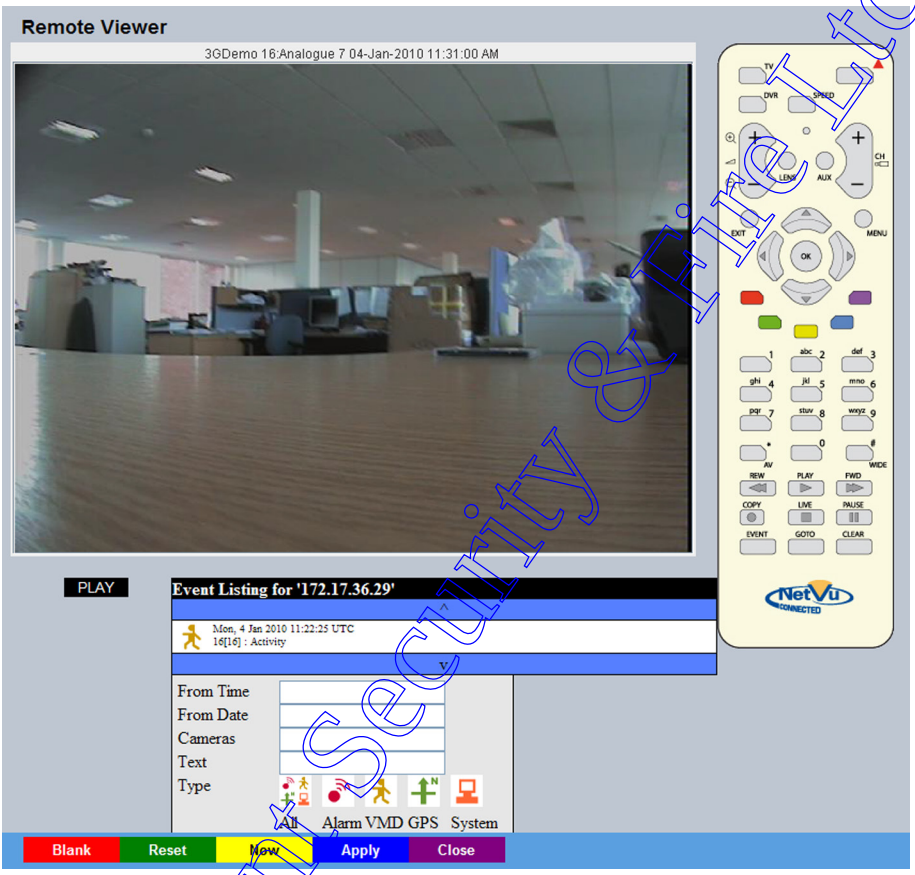
Note: *Single events can be deleted via the Copy menu.*

Yellow	Filter	Select to display the Filter Search menu, *refer to; Operating The Viewer->Filter Search for further guidance.*
Blue	Activity	Select to open the Activity Search menu, *refer to; Operating The Viewer->Activity Search Menu for further guidance.*
Purple	Next	Opens the Play menu for the currently selected camera.

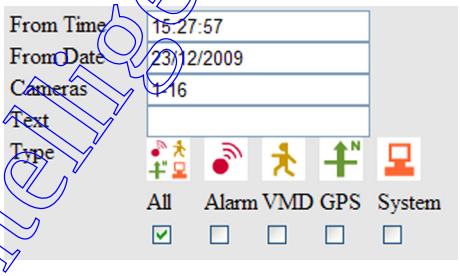
Intelligent Security & Fire Ltd

Filter Search Menu

When searching a large number of stored events, the Filter Search menu allows events to be filtered by time, camera channel and category.



Filter Search Box



From Time	Select a start time for the Event filter. Events prior to this time will be ignored.
From Date	Select a start date for the Event filter. Events prior to this date will be ignored.

Intelligent Security & Fire Ltd

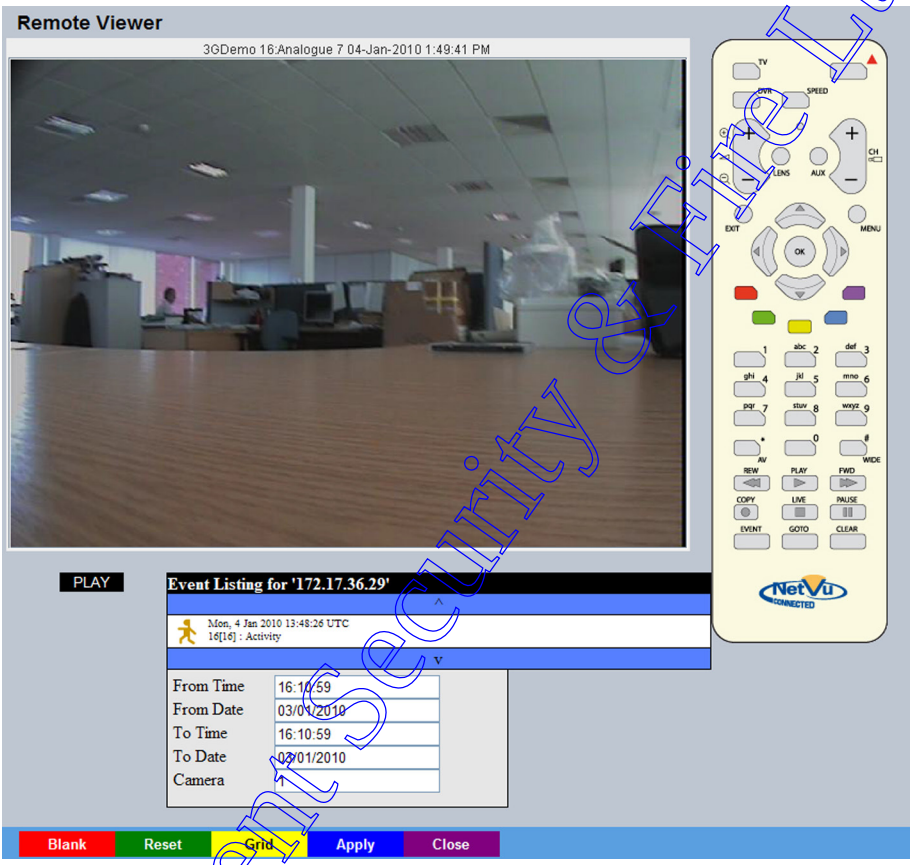
Dedicated Micros ©2011

	Cameras	Select which cameras are to be included within the Event search. A range of cameras can be selected by entering a hyphen between the first and last required camera i.e.1-8. A selection of individual cameras can be chosen by entering a comma between each camera i.e. 1,3,5,8. Events captured by other cameras will be ignored.
	Text	If searching for text in image events, enter the required text here.
	Type	The event search can be filtered to include all, or specific event types only. The event types are: Alarm, Activity, GPS and System. Each type is assigned a specific symbol, these symbols accompany each listed event for easy recognition.
Red	Blank	Select to remove all data currently displayed in the Filter Search Box.
Green	Reset	Select to reset the Filter Search box. The current Time/Date will be displayed plus all available cameras.
Yellow	Now	Select to enter the current Time/Date. Any additional displayed search criteria will remain.
Blue	Apply	Select to apply any changes made to the Filter Search box.
Purple	Close	Select to return to the Event Copy and Search menu.

Intelligent Security Pty Ltd

Activity Search Menu

The Activity Search menu allows the search criteria to be further narrowed to only include events which have occurred within specific segments of the camera view. Firstly, enter a start/end Time and Date, then select a camera channel. Use the Grid option to select a specific segment of the camera view.



From Time	Select a start time for the Activity filter. Events prior to this time will be ignored.
From Date	Select a start date for the Activity filter. Events prior to this date will be ignored.
To Time	Select an end time for the Activity filter. Events after this time will be ignored.
To Date	Select a end date for the Activity filter. Events after this date will be ignored
Cameras	Select which camera to include within the Activity search. A range of cameras can be selected by entering a hyphen between the first and last required camera i.e.1-8. A selection of individual cameras can be chosen by entering a comma between each camera i.e. 1,3,5,8. Events captured by other cameras will be ignored.

Intelligent Security & Time Ltd

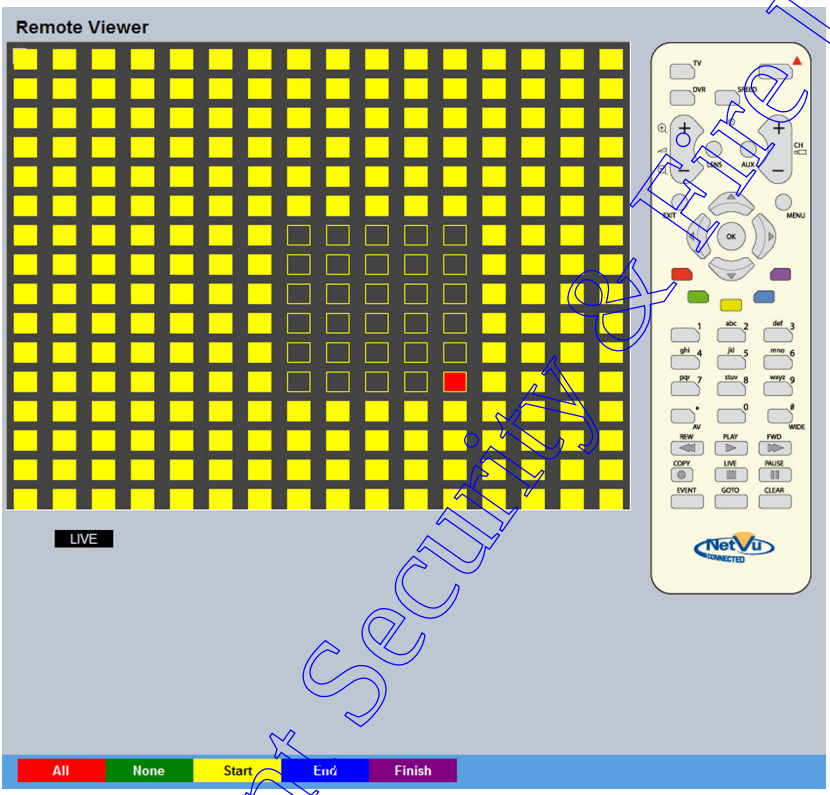
Dedicated Micros ©2011

Red	Blank	Select to remove all data currently displayed in the Filter Search Box.
Green	Reset	Select to reset the Filter Search box. The current Time/Date will be displayed plus all available cameras.
Yellow	Grid	Select to open the Grid menu.
Blue	Apply	Select to apply any change made to the Filter Search box.
Purple	Close	Select to return to the Event Copy and Search menu.

Intelligent Security & Fire Ltd

Activity Grid Menu

The Activity Grid menu allows the event search criteria to be further narrowed to only display events which have occured within a segment of the camera view. A grid will be displayed across the image of the selected camera channel. Using the options outlined below, the grid can be configured to create activity zones within the image. Only events which have occured wthin these zones will then be displayed in the Activity Search menu for the chosen camera channel.

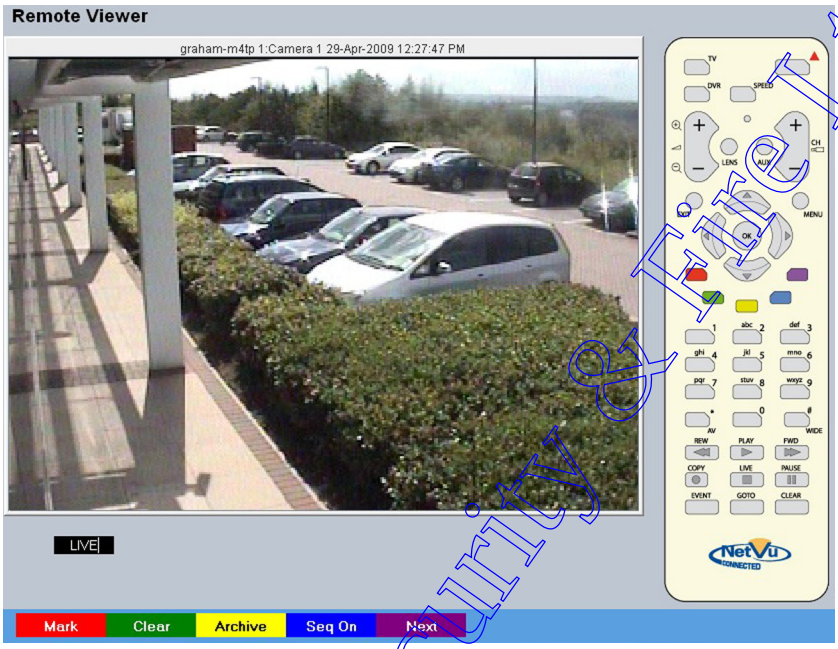


Red	All	This option will display a default rectangle of 18x16 cells across the video image.
Green	None	This option will delete all cells from the displayed video image.
Yellow	Start	Highlight a cell using the mouse (if viewing remotely) and select Start (Yellow). This will mark the start point of the area NOT to be included in the activity zone.
Blue	End	Highlight a cell using the mouse (if viewing remotely) and select End (Blue). This will mark the end point of the area NOT to be included in the activity zone.

Intelligent Security by Tele Ltd

Archive Selection

Images and events can be marked and added to the Copy Event List. The Viewer menu can also be set to 'sequence' through connected cameras and display images in sequential order.



Copy Event List		
1:	1 Aug 2008 10:10:22 ->	1 Aug 2008 10:14:57
2:	--- ->	---
3:	--- ->	---
4:	--- ->	---
5:	--- ->	---
6:	--- ->	---
7:	--- ->	---
8:	--- ->	---

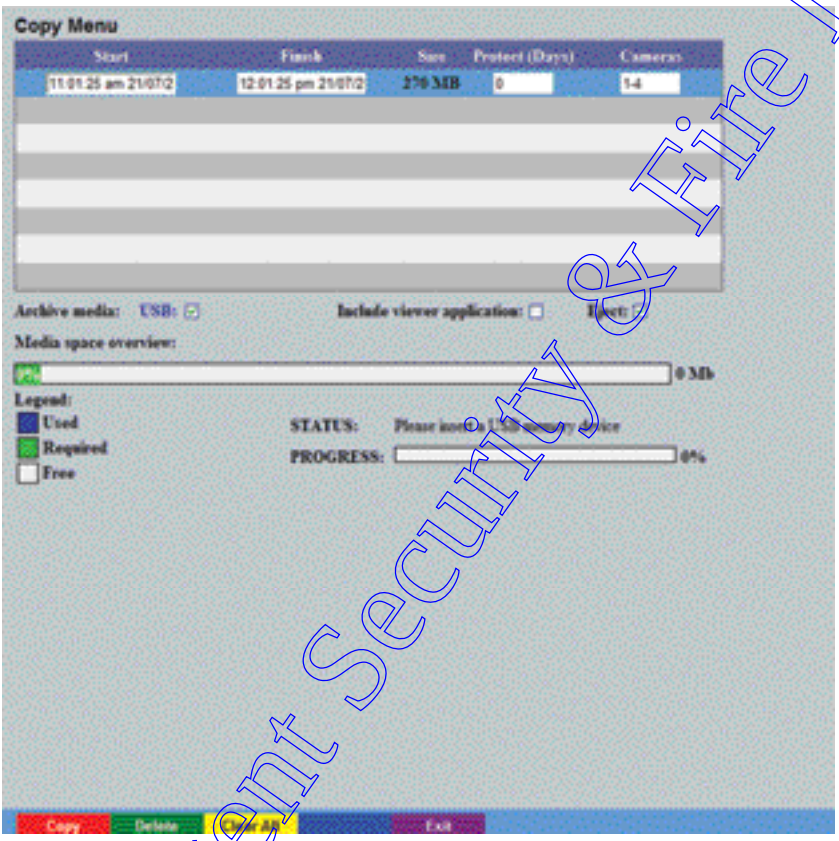
Red	Mark	In Playback mode, select 'Mark' to establish a start point for archiving purpose. The Copy Event List box will be displayed (see above) detailing the start date and time of the archive. Select 'Mark' again to establish an end time for the archive. A maximum of eight copy periods can be added to the Copy Event List.
Green	Clear	In Playback mode, select Clear to remove the last start or end mark added to the Copy Event List.
Yellow	Archive	Opens the Copy Menu.
Blue	Seq On/Off	Select 'Seq On' to display images from all connected cameras in a sequential order.
Purple	Next	Opens the Play menu for the currently displayed camera.

Intelligent Security & Fire Ltd

Copy Menu

Images and events can be copied to a USB Media for remote reviewing away from the unit (for evidential or monitoring purposes). The Copy Menu can be accessed via the 'Archive' (Yellow) button on the Archive Selection page.

Start and End points for video marked for download can also be added and edited directly within the Copy Menu.



The Copy menu will display all video images marked for archiving. The Start and Finish date/times will be shown along with the estimated size of the download, the period the images are protected for, and the camera channels to be included in the download.

To Edit an archive within the Copy menu, click on it directly (use the left mouse button when viewing remotely).

The textboxes within the 'Start', 'Finish', 'Protect (Days)' and 'Cameras' fields can be edited as required.

Selecting a blank Archive line will allow direct entry of data i.e. start/end time and date, protection period and the camera channels to be included in the Archive.

Intelligent Security & Fire Ltd

Archive Media	Select the media device (USB) for archive purposes.
Include Viewer Application	Select whether the application required to view archived data is included in the download.
Used (Blue)	Displays the space (as a percentage) already used on the chosen media device.
Required (Green)	Displays the space (as a percentage) required to download the selected archive(s).
Free (White)	Displays the space (as a percentage) that will remain following the download.
Status	Displays messages relevant to the archive process i.e. 'Archive In Progress'.
Progress	Displays the progress of the current archive (as a percentage of completion).

Red	Copy	Select to begin the download process.
Green	Delete	Select to delete the highlighted archive only.
Yellow	Clear All	Select to delete ALL archives currently displayed in the Copy menu.
Purple	Exit	Select to exit the Copy menu.

Note: *You can navigate away from the Copy menu and the archive procedure will continue*

To Copy Events/Images to a USB Device

1. Insert a USB Device into the USB port on the front of the unit.
2. Select USB from the Archive Media checkbox.
3. Select the Copy option (Red) to start archive.
4. Selected items are then save to the USB device.
5. The USB export progress is displayed as a %. On completion the status will read 'Archive Complete'.

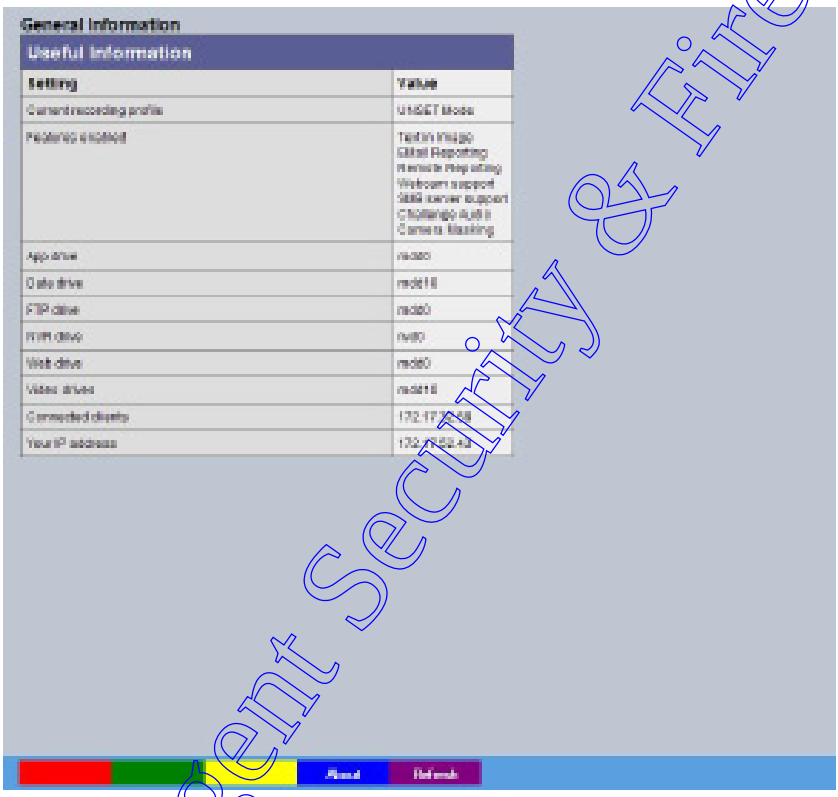
Intelligent Security Online Ltd

Appendix A

The following pages detail the menus available via the 'About' configuration option (System->Status-> About).

General Information

This page gives an overview of the units current settings including IP address, connections to the camera, the locations that data is being read from and written to, and which recording profile is active.



About (Blue) — Opens the *About* page

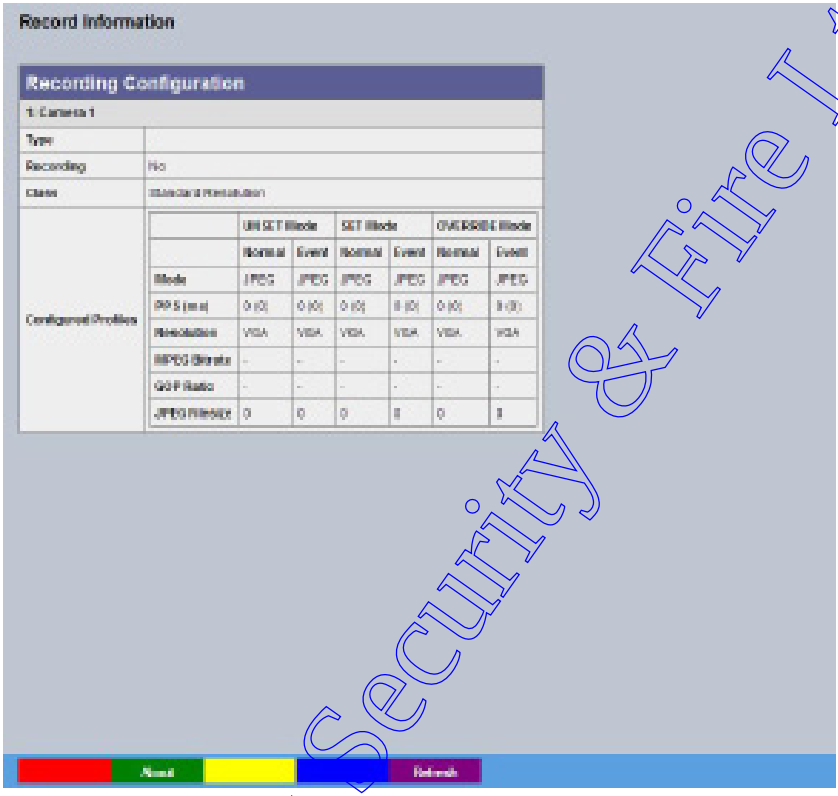
Refresh (Purple) — Refreshes the current page

Intelligent Security & Fire Ltd

Dedicated Micros ©2011

Record Details

This page displays the configured recording settings for the unit. The current record mode being used by the unit can be found on the General Information page.



About (Blue) Opens the *About* page

Refresh (Purple) Refreshes the current page

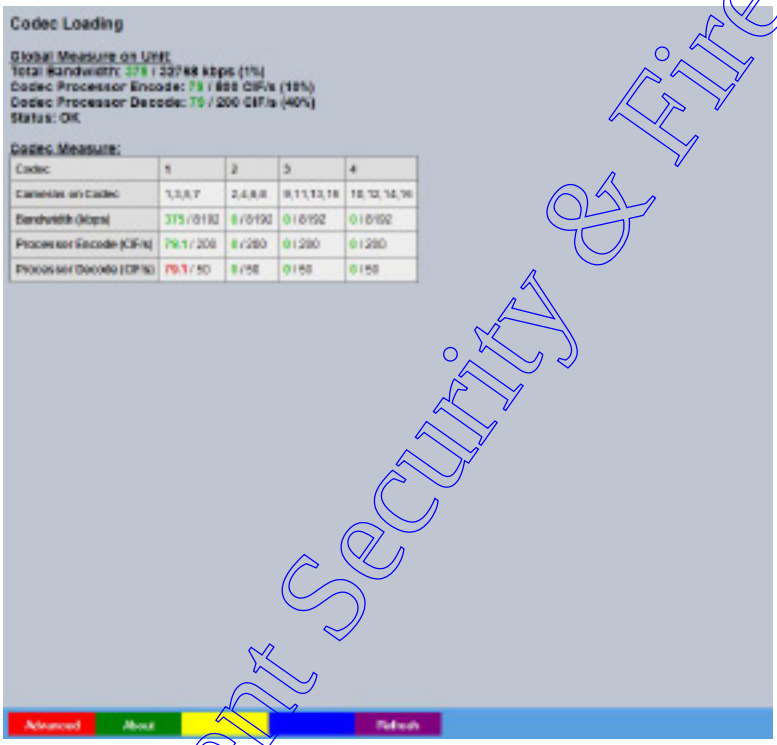
Intelligent Security & Fire Ltd

Codec Loading

This page details the demands placed on the codec in the form of CIF Usage (per sec) and Bitrate Usage (kbps). The table displayed highlights the current loading and the maximum Bandwidth (kbps) and Encode/Decode Processors (CIF/s) that can be placed on each codec.

Note: *The Encode figure combines both record loading from a local camera channel and transmission encoding.*

The current and maximum loading is shown in the format '3000 / 8192' (EXAMPLE). When the current loading is within the maximum limit, the text will be highlighted 'Green'. When the capabilities are breached, it will be highlighted 'Red'.



Select 'Advanced' (Red) to view the loading that will be placed on each codec for all Record Profiles.

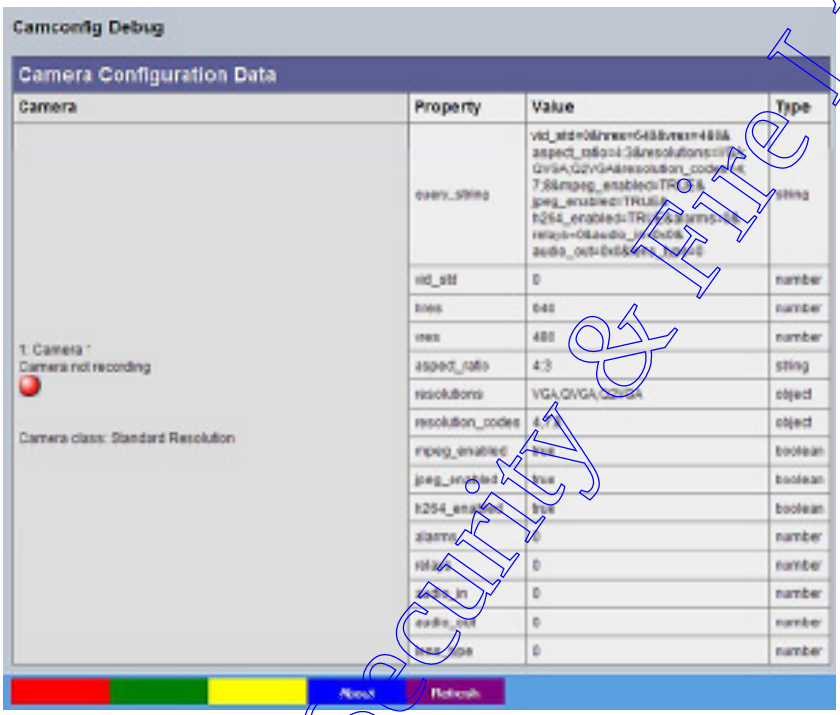
Intelligent Security & Fire Ltd

Basic/Advanced	Select to open the System->Status->About->Codec detail page.
About (Green)	Select to open the System->Status->About page.
Refresh (Purple)	Refreshes the information on the current page.

Intelligent Security & Fire Ltd

Camconfig Details

This page displays the capabilities of the unit in terms of resolution and supported compression formats. This unit does not support audio, alarms, relay or lens de-warping so all these parameters return 0.



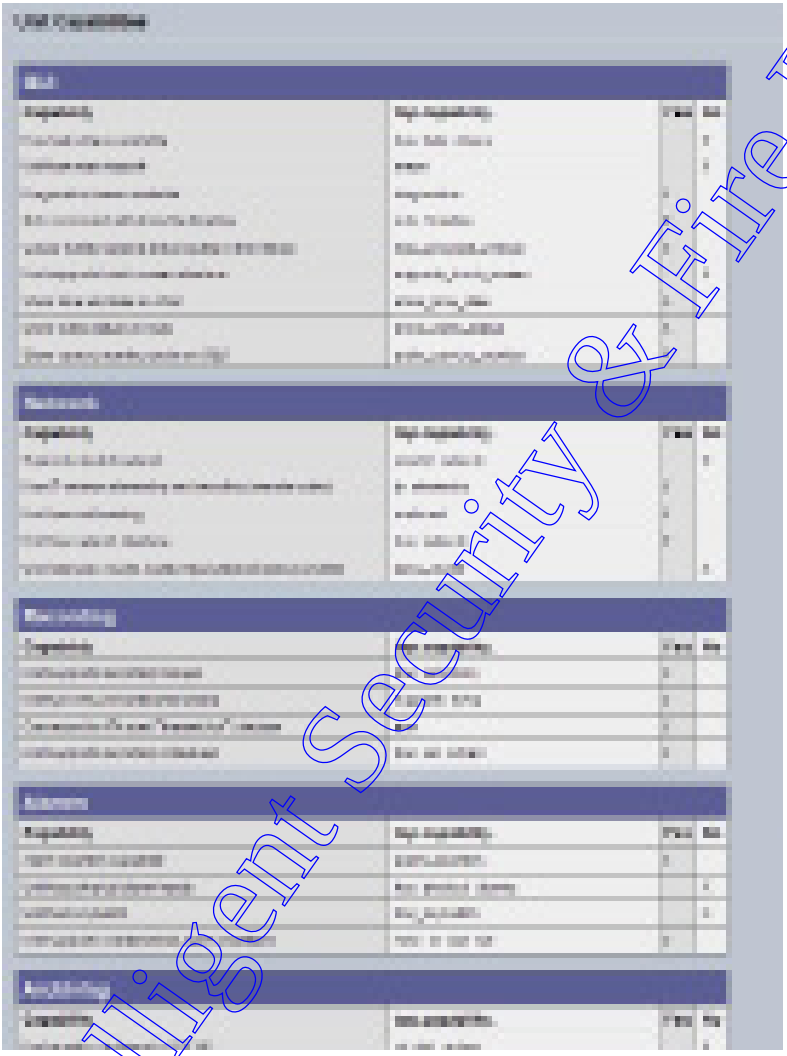
About (Blue) Opens the *About* page

Refresh (Purple) Refreshes the current page

Intelligent Security & Fire Ltd

Capabilities

This information page shows the capability settings for the unit. These parameters determine how the unit performs and what options are available on the web pages.



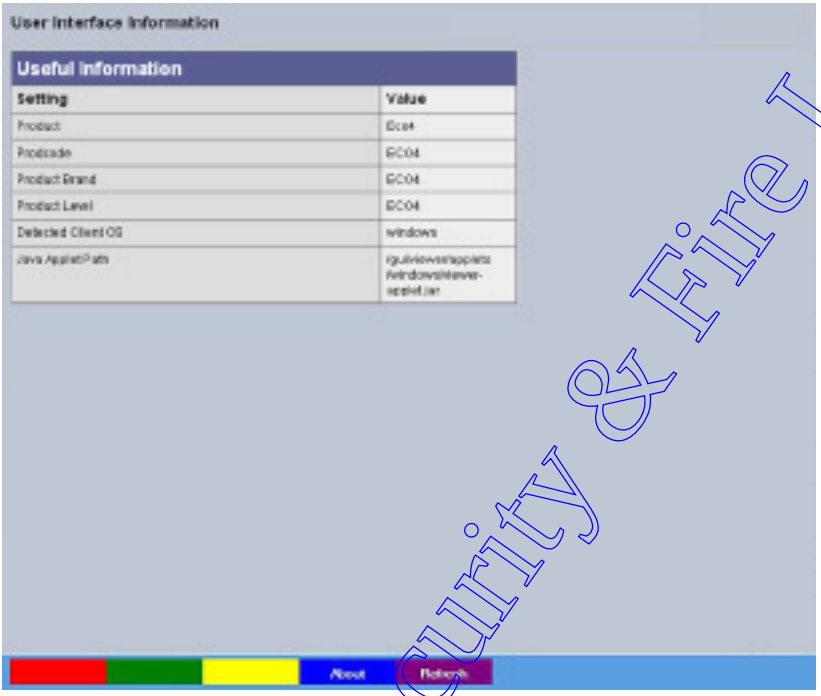
About (Blue) — Opens the *About* page

Refresh (Purple) — Refreshes the current page

Intelligent Security & Fire Ltd

UI Information

The UI page shows the settings stored in the unit which configure the user interface.

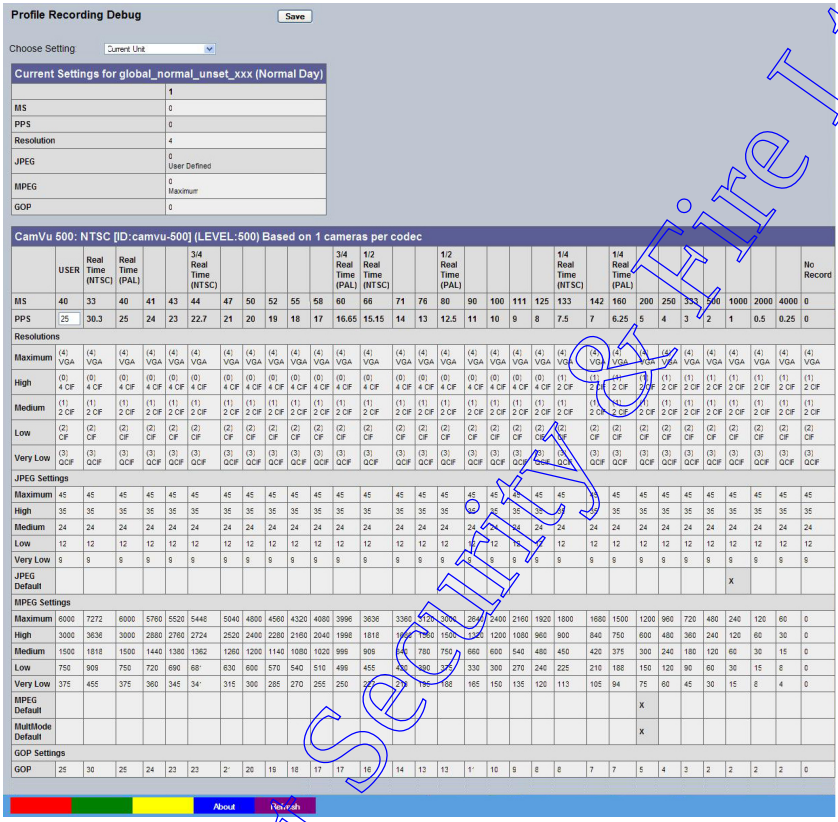


About (Blue)	Opens the *About* page
Refresh (Purple)	Refreshes the current page

Intelligent Security & Fire Ltd

Profile Record Tables

This page shows the different settings available in the record configurations. The current default settings are indicated by crosses.



Profile Recording Debug Save

Choose Setting: Current Unit

Current Settings for global_normal_unset_xxx (Normal Day)

	1
MS	0
PPS	0
Resolution	4
JPEG	0 User Defined
MPEG	0 Maximum
GOP	0

CamVu 500: NTSC [ID:camvu-500] (LEVEL:500) Based on 1 cameras per codec

	USER	Real Time (NTSC)	Real Time (PAL)			3/4 Real Time (NTSC)					3/4 Real Time (PAL)	1/2 Real Time (NTSC)			1/2 Real Time (PAL)				1/4 Real Time (NTSC)		1/4 Real Time (PAL)							No Record
MS	40	33	40	41	43	44	47	50	52	55	58	60	66	71	76	80	90	100	111	125	133	142	160	200	250	333	500	1000	2000	4000	0
PPS	25	30.3	25	24	23	22.7	21	20	19	18	17	16.65	15.15	14	13	12.5	11	10	9	8	7.5	7	6.25	5	4	3	2	1	0.5	0.25	0
Resolutions																															
Maximum	(4) VGA	(4) VGA	(4) VGA	(4) VGA	(4) VGA	(4) VGA	(4) VGA	(4) VGA	(4) VGA	(4) VGA	(4) VGA	(4) VGA	(4) VGA	(4) VGA	(4) VGA	(4) VGA	(4) VGA	(4) VGA	(4) VGA	(4) VGA	(4) VGA	(4) VGA	(4) VGA	(4) VGA	(4) VGA	(4) VGA	(4) VGA	(4) VGA	(4) VGA	(4) VGA	(4) VGA
High	(0) 4 CIF	(0) 4 CIF	(0) 4 CIF	(0) 4 CIF	(0) 4 CIF	(0) 4 CIF	(0) 4 CIF	(0) 4 CIF	(0) 4 CIF	(0) 4 CIF	(0) 4 CIF	(0) 4 CIF	(0) 4 CIF	(0) 4 CIF	(0) 4 CIF	(0) 4 CIF	(0) 4 CIF	(0) 4 CIF	(0) 4 CIF	(0) 4 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF
Medium	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF	(1) 2 CIF
Low	(2) CIF	(2) CIF	(2) CIF	(2) CIF	(2) CIF	(2) CIF	(2) CIF	(2) CIF	(2) CIF	(2) CIF	(2) CIF	(2) CIF	(2) CIF	(2) CIF	(2) CIF	(2) CIF	(2) CIF	(2) CIF	(2) CIF	(2) CIF	(2) CIF	(2) CIF	(2) CIF	(2) CIF	(2) CIF	(2) CIF	(2) CIF	(2) CIF	(2) CIF	(2) CIF	(2) CIF
Very Low	(3) QCIF	(3) QCIF	(3) QCIF	(3) QCIF	(3) QCIF	(3) QCIF	(3) QCIF	(3) QCIF	(3) QCIF	(3) QCIF	(3) QCIF	(3) QCIF	(3) QCIF	(3) QCIF	(3) QCIF	(3) QCIF	(3) QCIF	(3) QCIF	(3) QCIF	(3) QCIF	(3) QCIF	(3) QCIF	(3) QCIF	(3) QCIF	(3) QCIF	(3) QCIF	(3) QCIF	(3) QCIF	(3) QCIF	(3) QCIF	(3) QCIF
JPEG Settings																															
Maximum	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
High	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Medium	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Low	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Very Low	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
JPEG Default																											X				
MPEG Settings																															
Maximum	6000	7272	6000	5760	5520	5448	5040	4800	4560	4320	4080	3996	3636	3360	3120	3000	2640	2400	2160	1920	1800	1680	1500	1200	960	720	480	240	120	60	0
High	3000	3636	3000	2880	2760	2724	2520	2400	2280	2160	2040	1998	1818	1680	1560	1500	1320	1200	1080	960	900	840	750	600	480	360	240	120	60	30	0
Medium	1500	1818	1500	1440	1380	1362	1260	1200	1140	1080	1020	999	909	840	780	750	660	600	540	480	450	420	375	300	240	180	120	60	30	15	0
Low	750	909	750	720	690	681	630	600	570	540	510	499	455	420	390	375	330	300	270	240	225	210	188	150	120	90	60	30	15	8	0
Very Low	375	455	375	360	345	341	315	300	285	270	255	250	227	210	195	188	165	150	135	120	113	105	94	75	60	45	30	15	8	4	0
MPEG Default																								X							
Multimode Default																								X							
GOP Settings																															
GOP	25	30	25	24	23	23	21	20	19	18	17	17	16	14	13	13	11	10	9	8	8	7	7	5	4	3	2	2	2	2	0

About Refresh

About (Blue) Opens the *About* page

Refresh (Purple) Refreshes the current page

Intelligent Security Ire Ltd

Camera Overview

This menu provides a setup link to allow the settings on each individual camera to be adjusted.

Click on Local Camera Setup to edit the settings held in the DVR;

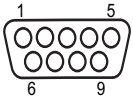
Refresh (Purple) Refreshes the information on the current page.

Intelligent Security & Fire Ltd

Appendix B

Serial Port Pin Outs

It is possible to connect a variety of telemetry cameras to the unit, use the following tables as a guide. Supported protocols are listed in Appendix F - Unit Specification.



RS232 Connectivity

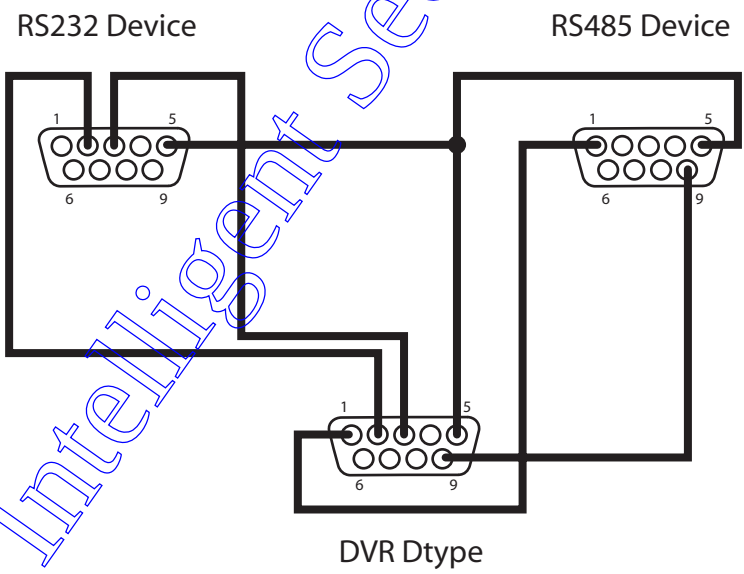
Pin	Description
2	Receive Data
3	Transmit Data
5	Ground

RS485 Connectivity (2 wire)

Pin	Description
1	RS485 + (A)
9	RS485 - (B)
5	Shield (GND)

Note: *A cable can be manufactured that connects pins 2, 3 and 5 to an RS232 device and pins 1,9 and 5 to an RS485 device. This allows two devices to be assigned to the same D type connector.*

Shared Cable wiring



Intelligent Security & Fire Ltd

Appendix C

User Activity Logging

User Activity logging can be enabled or disabled via the System Setting->Features menu. When this feature is enabled, the unit will record all actions performed via the user interface. These actions include Viewing the live stream, activating telemetry, altering the unit configuration, viewing recorded video, archiving video and any system events such as restarting the unit.

Data recorded will include the user name, login time and date, what action was performed, which channels were viewed and which telemetry instructions were issued.

The log files will be retained on the unit for as long as any related video files are kept. One log file will be created daily as a text file and will be named automatically (using the date of creation), and stored in the logs directory on the unit. This can then be downloaded via ftp if required.

Action	Stored Data
User Login	Username, Local or Remote, Login
Local Archive	Username, Local or Remote control, Media
Remote Raw Archive 1	http Username, Submission requesting archive time
Remote Selective Archive	http Username, Submission requesting archive time
Remote Raw Archive 2	FTP Username, List of downloaded files
Telemetry	IP address of user, Local or Remote, Channel Controlled, Command sent
Configuration	Username, Local or remote, Menus changed, Items changed
Playback	Username, Remote, Channel viewed, From time
Live	Username, Remote, Channel viewed
System Events	Username, Event Info

Intelligent Security Hire Ltd

Dedicated Micros ©2011

Appendix D

For guidance on locating the unit's IP address via a serial port connection, please see below:

Locating the unit IP address using the serial port

1. With the mains power off, connect a standard 9DF-9DF RS232 communications cable from the PC via the serial port connection (COM1) on the rear of the unit.
2. On the PC, click Start->Programs->Accessories->Communications->Hyperterminal and create a new connection via the COM port using these settings.

Bits per second	115200
Data Bits	8
Parity	None
Stop bits	1
Flow Control	None

3. Power the unit, the Power LED on the unit will illuminate.
4. Hyperterminal will display the communications information as the unit boots up. This will include the IP address, Subnet and Gateway.

Intelligent Security & Fire Ltd

Appendix E

Configuring Your PC for the Videolan VLC Player

The Multicast page allows recordings from the unit's camera input to be forwarded to a port address. To utilise the Multicasting function (refer to Configuration Menu: Network Settings->Multicast Setup for guidance).

This system has been validated using the 'Videolan VLC media player for MS Windows. The Videolan VLC media player can be downloaded free of charge from:

www.videolan.org/vlc/download-windows.html

Note: *Mulitcast can only used for live viewing, requests for stored images and events will still need to be made via the Viewer menu.*

To configure your PC to utilise VLC

Version 1.0.5

* Select Media | Services Discovery | SAP announcements
* Select View | playlist | SAP Announcements

All video servers with multicast enabled should then appear in the playlist window. Double click a server to start streaming data from it.

Version 0.8.6

* In VLC select Playlist -> Manage -> Services Discovery -> SAP Announcements
* Wait for the server to appear under "Session Announcements (SAP)" in the Playlist window.
* Click on one of the items advertised by the server.

The server broadcasts SAP announcements periodically, the packets contain SDP entries which describe the stream contents for each multicast enabled camera. VLC listens for SAP announcements and adds them to the playlist.

Intelligent Security & Fire Ltd

Appendix F

Unit Specification

LANGUAGES

Including: English, French, Italian, German, Spanish,

CAMERAS

4, camera inputs available. Auto detection on power up. Alarm on Camera Fail.

Option to view all or selected cameras without effecting recording.

MONITOR VIEWING

Main monitor:

Full screen, picture in picture & quad viewing .

Mon A: Composite video BNC connector.

VGA: VGA Connector -VGA Monitor.

ACTIVITY DETECTION

Each activity detection will switch the selected camera from normal record profile to alarm record profile. This feature can also; log the event, activate a relay, trigger a sounder, switch camera or link to an alarm.

Individual configurable alarm responses include; move camera to preset, activate a relay, remote alarm reporting, email on alarm, log event, switch camera, activate sounder.

ALARMS & RELAYS

4 normally open/closed alarm inputs via back panel

AUDIO

The user has the option to record and play back audio through the unit. Recorded with images, audio can be played back directly from the unit via powered external speakers.

Audio output for on site PA/Challenge.

Connections:

Line in: 1V pk-pk, RCA phono socket.

Line out: 1V pk-pk, RCA phono socket.

SEARCH AND PLAYBACK

- Frame advance/rewind, fast picture search and pause keys.
- Event list, including event list filter with unique quadrant preview facility.
- GOTO time and date.
- Playback in quad, picture in picture and full screen.

RECORDING

Playback and record to hard disk simultaneously.

Alarmed or manually selected images can be protected from being overwritten.

Timed expiry option allows images to be held for a selected number of days.

EVENT COPYING

Event sequences and user defined recorded sequences can be saved to an external flash drive through the USB port.

NETWORKING CAPABILITIES

A standard Ethernet connection allows live and recorded viewing on a networked PC using DM's NetVu ObserVer software. Webpages are available for configuration and live viewing using a standard web browser

RESOLUTION

QCIF, CIF, 2CIF, 4CIF

COMPRESSION

JPEG & MPEG-4 format files.

User definable file size and bit rate.

ECO4 RANGE DATA

Serial Ports: 1 x RS485 / RS232.

Ethernet: 1x Ethernet RJ-45 10/100 Ethernet connection.

USB: 3 x USB 2.0 Connector (1 positioned on the front panel).

Intelligent Security & Fire Ltd

TELEMETRY

Built-in RS485/Twisted pair protocols provide direct control of the numerous domes including but not limited to the following:

- Dedicated Micros Serial
- AD Matrix/AD 168-Matrix
- RS485/Matrix
- Ernitec
- JVC
- Kalatel
- MarkMercer
- Panasonic WV-CS600/WV-CS850
- Philips/Philips 232
- Samsung
- Sanyo
- Sensormatic
- Ultrak
- Vantage
- VCL/VCL-Matrix
- Vicon
- Vista

TEMPERATURE RANGE

5 - 40°C

RELATIVE HUMIDITY

10% - 85% Non-condensing.

Intelligent Security & Fire Ltd

Changelog

E1-2 Add Video Storage Page

Index

About ... 26
Accessing the Configuration Webpages ... 17
Accessing the menus on a local monitor ... 16
Accessing the menus on a PC web browser ... 16
Activity ... 85
Activity Grid Menu ... 120
Activity Response Setup ... 83
Activity Search Menu ... 118
Advanced Record ... 62
Alarm Input ... 76
Alarms and relays ... 11
Alarm Status ... 25
AoE ... 67
Archive ... 101
Archive Selection ... 121
Audio ... 10
Audio ... 35
Before you start ... 8
Camconfig Details ... 128
Camera Configuration ... 33
Camera Overview ... 57
Camera Overview ... 132
Camera Setup ... 55
Capabilities ... 129
CE Mark ... 7
Changelog ... 138
Change Scale ... 113
Check the contents of the box ... 8
Choosing a location for installation ... 8
Codec Loading ... 126
COMMON CONFIGURATION INTERFACE ... 4
Complete Flexibility ... 9
Configuration ... 40
Configuring the Unit ... 16
Configuring Your PC for the Videolan VLC Player ... 136
Copy Menu ... 122
Data ... 10
Debug Parser ... 103
Default DNS Address ... 16
Design of the manual ... 5
Display ... 50
Dome Menu Option ... 110
Electrical Connections ... 8
Email ... 96
Entering Alpha-Numeric Data via a Local Monitor ... 18
Event Copy and Search Menu ... 115
Event List ... 114
Export Logs ... 40
Features ... 4
Features ... 36
Filter Search Menu ... 116
Firewall ... 100
Front Panel connections ... 10
General Information ... 124
Global Actions ... 87
Holiday & Weekend ... 74
Installing the Eco4 Unit ... 12
JPEG Pre Trigger ... 64
Language ... 29
Lightning Strike ... 6
Live Transmissions ... 92
Locating the Unit IP address ... 16
Locating the unit IP address using the serial port ... 135
Logs ... 28
Main Menu ... 20
Maintain ... 40
Multicast Setup ... 94
Network ... 37
Network ... 90
Operating the Viewer ... 104
Other ... 39
Pins / Connection ... 14
Power ... 11
Power Sources ... 6
Profile Record ... 60
Profile Record Tables ... 131
Program Page ... 109
Protect Video ... 65
PTZ Program Option ... 108
Quick Overview Of Default Record Settings ... 9
Read Instructions ... 6
Rear Panel connections ... 10
Record ... 59
Record Details ... 125
Regulatory Notes and FCC and DOC Information ... 6
Relay Connector ... 14
Relay Connector / Pin / Alarm Input Connection ... 14
Relays ... 14
Remote Reporting ... 98
RS232 ... 15
RS232 Connectivity ... 133
RS485 ... 15
RS485 Connectivity (2 wire) ... 133
Schedule ... 72
Selection Page ... 107
Serial Port Pin Outs ... 133
Serial Ports ... 32
Server ... 41
Servicing ... 6
Shared Cable wiring ... 133
Software Menu ... 23
Step 1 - Connecting Video ... 12
Step 2 - Monitor ... 12
Step 3 - Connecting the USB Mouse ... 13
Step 4 - Connecting Audio ... 13
Step 5 - Connecting to the Network ... 13
Step 6 - Alarms / Relays ... 14
Step 7 - Connecting Serial Ports ... 15
Step 8 - Connecting Power ... 15
System ... 22
System ... 36
The Configuration pages are displayed on ... 16
Time and Date ... 30
Timeline Navigation ... 111
Time Scale Options ... 112
To configure your PC to utilise VLC ... 136
To Copy Events/Images to a USB Device ... 123
To format additional Video Storage ... 69
UI Information ... 130
Unit Specification ... 137
Unit Status ... 24
User Accounts ... 52
User Activity Logging ... 134
Using a USB Mouse or the Webpages ... 19
Using the Front Panel Interface ... 18
Utilising USB Memory ... 44
Ventilation ... 6
Version 0.8.6 ... 136
Version 1.0.5 ... 136
Video ... 10
Video ... 38
Video Control ... 106
Video Storage ... 68
Video Timeline ... 112
View Control ... 105
Viewer Defaults ... 48
What is Turbo mode? ... 60
Zone Actions ... 80
Zone Actions Camera ... 82
Zone Input ... 78

Intelligent Security Pte Ltd

Dedicated Micros Ltd.
1200 Daresbury Park, Daresbury,
Cheshire, WA4 4HS, UK

Dedicated Micros France
9-13 rue du Moulinet
75013 Paris, France

Dedicated Micros Germany
Hamtorstaße 9
41460 Neuss, Germany

Dedicated Micros, Australia PTY.
5/3 Packard Avenue, Castle Hill,
NSW 2154, Australia

Dedicated Micros, Asia PTY
16 New Industrial Road,
#03-03 Hudson Techno Centre,
Singapore 536204

Dedicated Micros Slovenia
Delavska cesta 26,
4208 Sencure, Slovenia

Dedicated Micros Middle East
Building 12, Suite 302,
P.O. Box 500291, Dubai Internet City, Dubai,
United Arab Emirates

Dedicated Micros Benelux
Joseph Chantraineplantsoen 1,
3070 Kortenberg, Belgium

Dedicated Micros (Malta) Ltd.
BLB017, Bulebel Industrial Estate,
Zejtun, ZTN3000, Malta

Dedicated Micros USA.
14434 Albemarle Point Place, Suite 100,
Chantilly, Virginia 20151 USA

Installed by

Intelligent Security & Fire Ltd